


1964

## Prospectus Day and Evening Courses: Session 1964-65

City of Dublin Vocational Education Committee

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MATHEMATICS

SCIENCE

BAKERY PRACTICE

CONFECTIONERY  
DECORATION

FLOUR MILLING

OPHTHALMIC AND  
DISPENSING OPTICS



ELECTRICAL  
ENGINEERING

ELECTRICAL  
INSTALLATION



RADIO AND  
TELEVISION SERVICING

RADIO OFFICERS

RADAR

POST OFFICE  
ENGINEERING

AIR NAVIGATION

CINEMA PROJECTION



# COLLEGE OF TECHNOLOGY

Kevin Street, Dublin

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## PROSPECTUS

Day and Evening Courses

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SESSION  
1964-65

## CALENDAR—SESSION 1964-65

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- 1964—SEPT. 7 Monday - Whole-time and Part-time Day Courses open for enrolment. Entrance Examinations for these Courses will be held during the week. Day Apprentice Classes commence work.
- 14 Monday - Whole-time and Part-time Day Classes commence work. Evening Courses open for enrolment and Entrance Examinations for these will be held during the week.
- 21 Monday - Evening Classes commence work.
- OCT. 21 Wednesday Solemn Votive Mass to mark the opening of the academic year in the City of Dublin Technical Colleges and Schools. Day Classes closed.
- DEC. 18 Friday - Final Class Meetings of Day and Evening Courses before Christmas vacation.
- 1965—JAN. 4 Monday - Day and Evening Classes resume work after Christmas vacation.
- 11 Monday - Mid-session Examinations will be held for all Evening Classes during this week, except where otherwise arranged.
- APR. 13 Tuesday - Final Class Meetings of Day and Evening Courses before Easter vacation. Final Meetings of Evening Classes, except Examination Classes, or where otherwise arranged.
- 26 Monday - Classes resume work after Easter vacation.
- JUNE 25 Friday - Summer Term closes, except where otherwise arranged.

On Tuesday, December, 8th, *Feast of the Immaculate Conception*; Wednesday, January 6th, *Feast of the Epiphany*; Thursday, May 27th, *Ascension Day*; and Thursday, June 17th, *Feast of Corpus Christi*, all Day Classes closed. Evening Classes will be held as usual on these days.

The College is closed on all Bank Holidays.



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## GENERAL INFORMATION

*Day Classes* will normally be held from 9 a.m. to 12.30 p.m. and 2 p.m. to 5 p.m. each week-day except Saturday unless special arrangements are made in specific cases.

*Evening Classes* will normally be held from 7 p.m. to 10 p.m. except where shown otherwise.

**Senior Students' Union Subscription:** Students enrolling in the Whole-time Courses, Radio Service Work (W.R.S.), Radio Officers (W.R.O.), Pre-University (W.S.U.), Senior Science (W.S.S.), Intermediate B.Sc. (W.S.I.), Opticians (W.S.O.) and Electrical Engineering (S.E.E.), are required to pay a Senior Students' Union fee of 10/- on enrolment. The fee is paid into the funds of the Union and is used by the Union to finance extra-curricular student activities.

**Office Hours:** 9 a.m. to 1 p.m. and 2.30 p.m. to 5 p.m., Monday to Friday.



## ADVISORY COMMITTEES

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THE PRINCIPAL and STAFF TEACHERS acting in collaboration with:—

### AIR NAVIGATION

R. W. O'SULLIVAN and P. J. FLANAGAN, Department of Transport and Power, Civil Aviation Section.

CAPT. T. P. McKEOWN, Aer Lingus, Dublin Airport.

CAPT. J. C. DEVOY, Trans-World Airlines, Inc.

CAPT. B. FLANAGAN, Chief Instructor, Air Navigation Courses.

M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

### BAKERY

Irish Bakers', Confectioners' and Allied Workers Union: J. SWIFT (Chairman), T. HARMON, P. KANE, J. FARNON, T. GOULDING, P. FLANAGAN and J. SWEETMAN.

Dublin Master Bakers' Committee: J. V. DOWNES, L. KENNEDY and G. RORKE.

Guild of Irish Bakers:

Confectionery Trade Branch, F.U.E.: W. H. LONG.

### CINEMA AND THEATRE (PROJECTION)

Theatre and Cinema Association (Ireland): M. CASEY (Secretary), D. TRACY, P. CLARKE, M. SCANLAN.

Cinema Branch, I.T.G.W.U.: J. FINN, W. NEEDHAM, W. BRADY, A. COLLINGE, E. BROWNE.

### ELECTRICAL ENGINEERING

A. HARKIN, M.E., M.I.E.E., M.I.MECH.E., M.I.C.E.I. (Chairman) and M. MACIONNRAIC, B.E., Electricity Supply Board.

R. C. CUFFE, B.E., PH.D., M.I.E.E. and L. COLLINS, B.E., B.S.C., A.M.I.E.E., The Institution of Electrical Engineers (Irish Branch)

A. J. LITTON, B.E., B.S.C., A.M.I.C.E.I., M.I.E.E., Department of Posts and Telegraphs.

R. A. H. JACKSON, B.E., B.S.C., A.R.C.S.C.I., A.M.I.E.E., A.M.I.C.E.I., Cumann na n-Innealtoirí.

P. H. GREER, M.I.E.E., Unidare Ltd.

J. A. MCCONNELL, M.I.E.E., Messrs. Roche and McConnell.

M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

## MEDICAL LABORATORY TECHNOLOGY

- DR. F. GEOGHEGAN, Pathologist, National Maternity Hospital, Holles Street.  
DR. P. T. MOORE, Biochemist, St. Kevin's Hospital.  
DR. J. P. O'RIORDAN, Medical Director, The National Blood Transfusion Association.  
DR. P. D. J. HOLLAND, Pathologist, Our Lady's Hospital for Sick Children.  
B. DOWNES, Senior Medical Laboratory Technologist, St. Kevin's Hospital.  
H. FARRELL, Senior Medical Laboratory Technologist, Dr. Steevens' Hospital.  
J. HANRATTY, Deputy Chief Technical Officer, National Blood Transfusion Association.  
C. KEOGH, Senior Medical Laboratory Technologist, Richmond Hospital.  
PROFESSOR J. BAXTER, Director Veterinary Medicine, Veterinary College, Ballsbridge.  
DR. C. MCCREA, Pathologist, Royal City of Dublin Hospital, Baggot Street.  
MR. J. TRESTON, Senior Technician, National Maternity Hospital, Holles Street.  
MR. J. A. STOKES, Chief Technician, Sir Patrick Dun's Hospital, Lower Grand Canal Street.

## OPHTHALMIC OPTICS

THE PRESIDENT AND TWO MEMBERS OF COUNCIL, ASSOCIATION OF  
OPHTHALMIC OPTICIANS, IRELAND.

## POST OFFICE ENGINEERING

- A. J. LITTON, B.E., B.SC., A.M.I.C.E.I., M.I.E.E.; P. SULLIVAN and E. O'DUFFY,  
B.E., A.M.I.E.E., Department of Posts and Telegraphs.  
T. GOGGIN and K. O'HIGGINS, Irish Post Office Engineering Union.  
M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

## DENTAL MECHANICS

- DR. T. J. O'LOONEY, L.D.S., 35 Merrion Square.  
G. DART, L.D.S.I., Dental Hospital of Ireland, 20 Lincoln Place.  
ANDREW GANLY, B.D.S., 45 Fitzwilliam Square.  
D. GALLIVAN, 22 North Frederick Street.  
JAMES MORGAN, 48 Lower Baggot Street.  
LAURENCE G. MONGEY, 88 Kildonan Road, Finglas.  
WILLIAM PHELAN, An Cheard Chomhairle, 21 Fitzwilliam Square.



# COLLEGE OF TECHNOLOGY—KEVIN ST.

Phone Nos. 56478-9.

AND

**RADIO SCHOOL, 51 HARCOURT STREET**

Phone No. 51469

*Principal :*

HUGH DE LACY, B.E., B.Sc., M.I.E.E.

*Assistant Principal (Acting) :*

JOHN M. FORDE, B.E.

## DEPARTMENT OF MATHEMATICS

*Head of Department :* John M. Forde, B.E.

*Assistant Head of Department :* Thomas Ambrose, M.Sc.

## DEPARTMENT OF PHYSICS

*Head of Department :* Vacant.

*Assistant Head of Department :* Morgan J. Sheehy, B.Sc., A.Inst.P.

## DEPARTMENT OF CHEMISTRY AND BIOLOGY

*Head of Department :* Vacant.

*Assistant Head of Department :* William Broderick, M.Sc.,  
H.Dip.Ed., D.P.A., M.I.C.I., M.R.I.P.H.H.

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*Head of Department :* Bartholomew J. O'Connor, A.M.Brit.I.R.E.

*Assistant Head of Department :* Matthew J. Rice, Grad.Brit.I.R.E.

## DEPARTMENT OF ELECTRICAL ENGINEERING

*Head of Department :* Thomas Short, A.M.I.E.E., Grad.Brit.I.R.E.

*Assistant Head of Department :* Timothy Cronin, B.E.

## DEPARTMENT OF ELECTRICAL INSTALLATION WORK

*Head of Department :* Liam Trundle, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

*Assistant Head of Department :* John J. Farrell, Grad.I.E.E.

*Senior Teacher :* R. Kelly, City and Guilds, F.T.C. (E.E.P.).

*Instructor in Charge, Mechanical Workshop :* Nicholas F. Goulding.

*Instructor in Charge, Electrical Installation Workshop :* Ignatius Tighe.

## DEPARTMENT OF GENERAL STUDIES

*Head of Department :* Thomas A. G. Dowling, B.A., B.Comm.,  
H.Dip.Ed.

## SPIRITUAL DIRECTORS

Rev. P. Dunne, S.J.,

Rev. M. J. Morahan, S.J.

## STOCK RECEIVER AND CONTROLLER

Francis Nolan, M.Sc., H.Dip.Ed.

## ADMINISTRATION

*Chief Clerk :* Mr. R. J. Day.

*Secretary to the Principal :* Miss M. O'Donovan.

*Clerk Typists :* Misses J. McManus, M. McHugh, J. Russell



## STAFF TEACHERS

S. Anthony, F.Inst.B.B., City and Guilds, F.T.C.	J. McInerney, B.Sc.
J. Blennerhassett	D. McManus
L. Breen, B.Sc., Dip.Chem.Tech.	J. G. Mahon
F. M. Brennan, Grad.I.E.E.	M. Mullett, B.Sc.
J. C. Calnan, B.Sc.	G. Murphy
P. Connell	D. Naessens
B. Conway, B.A., H.Dip.Ed., T.T.G.	T. P. O'Brien
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T. Lawless	E. G. Seale, A.M.Brit.I.R.E.
	Dr. D. Nolan, L.R.C.P. & S.I., D.P.H.

## PART-TIME TEACHERS

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D. Boyle	V. Duggan, A.M.I.E.E., A.M.I.C.E.I.
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J. Cahill	J. Gibney, B.Sc.
L. Cahill	M. T. Goggin, Grad.I.E.E.
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J. W. Devon	Miss N. Horner
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B. Downes	
J. T. Downes, Grad.I.E.E.	

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 J. McGarry  
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 T. McGowan  
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 R. O'Brien  
 R. F. O'Connell, B.Sc., Ph.D.  
 J. O'Connor  
 P. O'Doherty  
 J. O'Donnell  
 J. T. O'Donnell

T. K. O'Donnell, M.Sc.  
 K. J. O'Donovan  
 E. O'Dwyer, B.E.  
 T. O'Halloran  
 J. O'Keefe, A.M.I.E.E.  
 R. O'Kelly, M.Sc.  
 J. O'Neill, B.E.  
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 D. O'Shea, B.Sc.  
 C. P. O'Toole, M.Sc.  
 J. Phelan  
 A. W. Patterson  
 T. Phillips  
 J. P. Pittion  
 J. V. Quinn, B.E.  
 J. Ring, B.A.  
 V. J. Roddy, A.M.I.E.E.  
 A. Ryan, B.E.  
 Miss E. P. Ryan, F.B.O.A.,  
 F.S.M.C., D.Orth.  
 M. J. Ryan  
 J. Scott  
 T. Sheerin  
 R. Sloan  
 P. Start, B.A., M.Sc., M.I.C.I.  
 J. Stokes  
 B. C. Thomas  
 D. Toomey, B.Sc.  
 G. Waters, B.E.  
 W. White  
 J. J. Woods, A.M.Brit.I.R.E.,  
 A.M.I.E.E.



## **REGULATIONS GOVERNING THE ADMISSION OF STUDENTS TO CLASSES AND COURSES**

The attention of all students is directed to the General Regulations for Schools and Classes operating under the authority of the City of Dublin Vocational Education Committee. These Regulations are displayed on the Notice Board in the Hall and they govern Admission and Enrolment, Fees, Transfers, Formation and Continuance of Classes, Discipline, etc.

### **ENROLMENT**

Intending students are required to show evidence of ability to profit by the instruction before being approved for admission to any stage of a particular Course. Acceptance for admission to any Course of Study must be certified on the standard enrolment form by the responsible Teacher-in-charge or by the Head of Department, Assistant Principal or Principal. The requisite Course Fees, together with the completed form of enrolment, must be lodged in the College office; the sole certification of enrolment in a Course is the official receipt for the Course Fees paid. Registration on Class Rolls and entry on the Course of Study provided by any Class may be made only on presentation to the Lecturer or Instructor in control of the Class of the appropriate official Course receipt and Class Ticket.

### **SESSIONAL EXAMINATIONS AND CLASS PROMOTION REGULATIONS**

Examinations are held at end of Session in respect of each class-subject; no student shall be admitted to the Examinations who has not made at least three-fourths of the possible attendance, except in very special circumstances and at the discretion of the Principal. Promotion to a Higher Stage of instruction in any subject is contingent on passing the Sessional Examinations in the Lower Stage. An Experimental Record Book is required to be maintained by each student of a Laboratory Class; an assessment shall be made at end of Session of each student's progress in laboratory technique and experimental ability.

### **TRADE CLASSES**

These classes are provided for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade. For admission to Trade Classes proof of actual employment in the several processes and operations of the trade will be certified to that effect from the Masters' Association and/or the official Trade Unions of the trade concerned.

Enrolment subsequent to Monday, 30th September, 1964, may be made only on the authority of the Principal.



## WHOLE-TIME COURSES

### **Ref.: W.R.S.      Radio and Television Service Work**

*Teacher-in-Charge:* B. J. O'CONNOR, A.M.BRIT.I.R.E.

Fee: £15 per session.

Senior Students' Union Subscription, 10/-.

This course conducted over three sessions is designed to meet the needs of students desiring full training and certification in Radio and Television Servicing. Applicants for this Course should be not less than sixteen years of age and as a minimum qualification must hold the Day Vocational Certificate (Manual Training Group) in approved subjects, or the Intermediate Certificate (Secondary Schools) and, in addition, will be required to take a General Suitability Test.

The subjects of this Course and the allocation of hours per week to each subject are:

**FIRST YEAR:** Mathematics, 4; Applied Mathematics, 2; Physics, 4; Electricity, 6; Radio, 10; Mechanical Workshop Practice, 3; English, 3; Social Science, 1.

**SECOND YEAR:** Mathematics, 3; Physics, 2; Electricity, 3; Radio and Electronics, 10; Radio Laboratory and Practical Work, 11½; English, 2; Social Science, 1.

**THIRD YEAR:** The subjects for the third year of the course will be published in the Prospectus for the Session 1965-66.

Students will sit for examinations in Radio and Television Servicing of the Department of Education at the end of each session. They will also sit the Intermediate examination in Radio and Television Servicing of the Radio Trades Examination Board London, at the end of the second session.

### **Ref.: W.R.O.      Radio Officers Certificate Course (Mercantile Marine)**

*Teacher-in-Charge:* B. J. O'CONNOR, A.M.BRIT.I.R.E.

Fee: £24 per session or £8 per term.

Senior Students' Union Subscription, 10/-.

This Course is conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

The Course prepares students for the examinations for a certificate of competency in Radiotelegraphy and Radiotelephony conducted by the Department of Posts and Telegraphs. This Certificate confers eligibility for employment as a Radio Officer in the International Mercantile Marine Services.

## WHOLE-TIME COURSES

The instruction includes Lectures and Practical Work in Mathematics, Electricity, Radio Communication and Direction Finding and training and practice in maintenance and servicing of Marine Radio equipment, in sending and receiving in the Morse Code, in operating procedures and traffic working, and in the Merchant Shipping Rules and the International Regulations. The College is equipped with approved types of Radio Apparatus as required by the Merchant Shipping Rules, 1953.

The duration of the period of training requisite for the acquirement of a First Class State Certificate of Competency is approximately two sessions. The Certificate Examinations Parts 1 and 2 are conducted in the College during March and June in each session by the Department of Posts and Telegraphs. Part 2 only of the examination will be held in the College in December.

The Syllabuses followed in the Course are those published by the Department of Posts and Telegraphs in conformity with the International Radio Regulations (Telecommunications) Convention.

The subjects of the Course and the allocation of hours per week to each subject are as follows:—

FIRST YEAR: 1ST TERM: Mathematics,  $3\frac{1}{2}$ ; Technical Electricity, 9; Morse, 16; International Regulations,  $1\frac{1}{2}$ ; Typewriting,  $1\frac{1}{2}$ ; Social Science, 1. 2ND AND 3RD TERMS: Mathematics,  $3\frac{1}{2}$ ; Technical Electricity, 3; Radio Communication, 8; Radio Practical,  $3\frac{1}{2}$ ; Rules, Regulations and Physical Geography,  $1\frac{1}{2}$ ; Morse, 12; Social Science, 1.

SECOND YEAR: Mathematics,  $3\frac{1}{2}$ ; Technical Electricity, 3; Radio Communication, 7; Radio Practical,  $7\frac{1}{2}$ ; Rules and Operating Procedures,  $1\frac{1}{2}$ ; Morse, 9; Social Science, 1.

ENROLMENT AND ENTRANCE EXAMINATION: Enrolments will be accepted in the first week of September each year and further enrolments may be accepted in the first week of the spring term if accommodation is available. Prospective students should be at least sixteen years of age and have attained as a minimum the Intermediate Certificate of the Department of Education or equivalent. All applicants will be required to sit a General Suitability Test.

Prospective students will be interviewed in the Radio School, 51 Harcourt Street, on September 7th—9th, 1964, and January 4th—6th, 1965. General Suitability Tests will be held on 10th September, 1964 and 7th January, 1965.



## WHOLE-TIME COURSES

**Ref.: W.R.R. Marine Radar Maintenance  
Certificate Course**

*Teacher-in-Charge:* M. J. RICE, GRAD.BRIT.I.R.E.

Fee: £15 per term.

This course is of ten to twelve weeks' duration and provides 32½ hours a week of theory and practical work on up-to-date Marine Radar equipment. The course is open to those who have obtained a Certificate of Proficiency in Radiotelegraphy.

Enrolments are accepted during the first week of the Autumn, Spring and Summer Terms. Radio Officers seeking Study Leave may make advance bookings for a course. Examinations for the Marine Radar Maintenance Certificate, conducted by the Department of Posts and Telegraphs, are held in the College at the end of each Course.

**Ref.: W.S.U. Pre-University Course  
in Science**

*Teacher-in-Charge:* W. BRODERICK, M.SC., H.DIP.ED., M.I.C.I.

Fee: £25 per session or £10 per term.

Fee per single subject: £4 per term.

Senior Students' Union Subscription, 10/-.

This one-year Course provides instruction in the basic sciences for students who propose to pursue University Courses in Science, Engineering, Medicine, etc., or who wish to prepare for examinations such as College of Surgeons Entrance, the Preliminary examinations of the Pharmaceutical Society of Ireland, Association of Ophthalmic Opticians, Ireland, etc. The syllabuses are those prescribed for the Leaving Certificate Honours of the Department of Education and the Matriculation examination of the National University of Ireland. The subjects of the Course and the allocation of hours to each subject per week are: Physics, 8½; Chemistry, 8; Mathematics, 6; Biology, 6; Social Science, 1.

**Ref.: W.S.S. Senior Science Course**

*Teacher-in-Charge:* M. J. SHEEHY, B.SC., A.INST.P.

Fee: £12 per session.

Senior Students' Union Subscription, 10/-.

This one-year Course provides education in the basic sciences for students who intend to pursue subsequent courses in Science or Electrical Engineering in the College. The subjects of the Course and number of hours allocated to each subject during each week are: Mathematics, 6; Applied Mathematics, 4½; Physics, 6; Chemistry, 6;



## WHOLE-TIME COURSES

English, 6; Social Science, 1; General Studies, 3. Prospective students should have passed the Leaving Certificate of the Department of Education (Secondary Branch) with passes in Mathematics, English and three other subjects. Applicants with Day Vocational Certificate (Manual Training Group) or the Intermediate Certificate of the Department of Education are normally required to complete successfully a preliminary one-year Course at the Technical Institute, Ringsend. All applicants will be required to take a General Suitability Test. At the end of the session, students sit the General Certificate of Education (Ordinary Level) of the University of London in the subjects: English, Additional Pure Mathematics, Applied Mathematics, Physics and Chemistry. The College is a recognised centre for the examination. Successful students who intend to follow a career in Science should continue to Course W.S.I. below and those who intend to follow a career in Electrical Engineering should continue to Course S.E.E. Courses in Civil and Mechanical Engineering are provided in the College of Technology, Bolton Street.

**SCHOLARSHIPS:** The City of Dublin Vocational Education Committee offers scholarships to this Course. For details, see page 52 of this Prospectus.

### *Ref.:* W.S.I.      Intermediate B.Sc. Degree Course

*Teacher-in-Charge:* E. J. ROTHERY, B.Sc., F.I.C.I., A.R.I.C.

Fee: £25 per session.

Senior Students' Union Subscription, 10/-.

This one-year Course provides education in Mathematics, Applied Mathematics, Physics and Chemistry for the General Certificate of Education (Advanced Level) of the University of London. Passes in three of these subjects at Advanced Level, together with a pass in English at Ordinary Level, exempts from the Intermediate Examination in Science of the University of London (Inter.B.Sc.). The College is a recognised centre for these Advanced Level Examinations. Prospective students must have already obtained the General Certificate of Education at Ordinary Level in English, Additional Pure Mathematics, Applied Mathematics, Physics, and Chemistry or attained an approved equivalent standard.

The subjects of the Course and the number of hours per week allocated to each subject are: Mathematics,  $7\frac{1}{2}$ ; Applied Mathematics, 8; Physics, 8; Chemistry, 8; French, 1; Industrial Organisation, 1; Philosophy, 1; Tutorial,  $3\frac{1}{2}$ ; General Studies, 1. Each

## WHOLE-TIME COURSES

student has the choice of taking *either* Applied Mathematics *or* Chemistry—the two subjects *cannot* be taken together. Successful students of the Course obtain employment in industries which utilise scientific processes, and by subsequent attendance at appropriate evening classes in the College may proceed to the B.Sc. (External) Degree of the University of London. (See Courses S4.1 and S4.2 on page 33.)

### **Ref.: W.S.O. Ophthalmic and Dispensing Opticians' Course**

*Teacher-in-Charge*: K. P. CULLITON, F.A.O.I.

Fee: £35 per session.

Students' Union Subscription, 10/-.

This Course provides for the education and training of Ophthalmic and Dispensing Opticians. Consequent on the Opticians Act, 1956, it is now necessary for all Ophthalmic and Dispensing Opticians to be registered under the Act by Bord na Radharcmhastoiri. Future entrants to these professions must attend courses of training and pass examinations approved by Bord na Radharcmhastoiri. The first two years of the Course are common to both Ophthalmic and Dispensing Optician students. The third year of the Course is provided for Ophthalmic Optician students only. The Association of Ophthalmic Opticians, Ireland, and the Irish Association of Dispensing Opticians co-operate with the Vocational Education Committee in organising the Course, which is approved by Bord na Radharcmhastoiri. At the end of each year of the Course, students will sit examinations conducted or approved by the Bord. Prospective students must have passed the Matriculation or Leaving Certificate in Irish, English, Mathematics, and two other subjects, or possess an approved equivalent standard of general education. The subjects of the Course and the allocation of hours per week to each subject are:—

**FIRST YEAR:** Mathematics, 6; Physics, 7; Chemistry, 6; Biology, 1 term, 9; Anatomy and Physiology, 2 terms, 9; Workshop Practice, 3; Social Science, 1½.

**SECOND YEAR:** Light and Optical Instruments, 1st term, 4½; 2nd term, 7½. Geometrical Optics: 1st term, 4½; 2nd term, 2½; 3rd term, 7. Anatomy and Physiology: 1st term, 7½; 2nd term, 4½; 3rd term, 4½. Physiological Optics: 1st term, 6; 2nd term, 6; 3rd term, 9. Optical Dispensing: 1st term, 7½; 2nd term, 7½; 3rd term, 6. Optometry: 2nd term, 1½; 3rd term, 3. Ethics, Law and Elementary Commerce, 1½; Social Science, 1½.

**THIRD YEAR:** Ophthalmic Optician students only—Optometry (Theory, Methods, Practice), 16½; Physiological Optics, 3; Recognition of the Existence of Abnormal Conditions, 5½; Orthoptics, 3;



## WHOLE-TIME COURSES

Ophthalmic Instruments,  $1\frac{1}{2}$ ; Environmental Optics,  $1\frac{1}{2}$ ; Social Science,  $1\frac{1}{2}$ .

Enrolments in the first year of this Course will be accepted only in alternative years, viz., September, 1965; September, 1967.

*Ref.*: W.R.T.T.

### Telecommunications and Electronics Technicians' Course

*Teacher-in-Charge*: B. J. O'CONNOR, A.M.BRIT.I.R.E.

Fee: £20 per session.

This Course, conducted over a period of three sessions, is designed to meet the needs of students who wish to enter the field of telecommunication and electronics as Technicians.

At the end of each of the first two years of the Course students will sit for the City and Guilds of London Institute Telecommunications Technicians' Certificate Examinations. Students who successfully pass the sessional College examinations in addition to the above may proceed to the third year of the Course to prepare for selected subjects of the City and Guilds of London Institute Supplementary Studies in Telecommunications and Electronics.

Prospective students should, as a minimum, have passed the Leaving Certificate in Mathematics and English or have attained an equivalent standard in each of these subjects. The subjects of the Course and the allocation of hours per week to each subject are:—

FIRST YEAR: Mathematics,  $3\frac{1}{2}$ ; Applied Mathematics, 2; Electricity (Lecture),  $4\frac{1}{2}$ ; Electricity (Laboratory), 2; Physics (Lecture), 2; Physics (Laboratory), 2; Electronics (Lecture), 3; Electronics (Laboratory), 5; Drawing,  $2\frac{1}{2}$ ; General Studies, 3; Workshop Practice, 3.

SECOND YEAR: Mathematics,  $4\frac{1}{2}$ ; Physics (Lecture), 2; Physics (Laboratory), 2; Electronics (Lecture),  $3\frac{1}{2}$ ; Radio and Electronics (Laboratory), 10; Circuit Theory, 2; Radio Communication,  $1\frac{1}{2}$ ; Transmission and Propagation, 1; Measurements,  $1\frac{1}{2}$ ; Electricity (Lecture),  $1\frac{1}{2}$ ; General Studies, 3.

THIRD YEAR: Mathematics, 4; Physics, 1; Electronics, 4; Radio Communication, 3; Measurements, 2; Circuit Theory, 2; Radar, 1; Industrial Electronics, 1; Laboratory, 12; Tutorial,  $2\frac{1}{2}$ .



## SANDWICH COURSES

### Ref.: S.E.E. Electrical Engineering Course College-based Sandwich Course

*Teacher-in-Charge*: T. SHORT, A.M.I.E.E., GRAD.BRIT.I.R.E.

Fee: £25 per session.

Senior Students' Union Subscription, 10/-.

This course, conducted over four sessions, is approved by the Institution of Electrical Engineers and prepares students for the Institution's Graduateship examination (Grad.I.E.E.). At the end of each of the first three sessions, students will be placed with engineering firms and organisations to acquire approved practical engineering training. Approximately 50 weeks will be spent in this manner and in nearly every case the firm will give a weekly allowance to the student. Attendance, conduct and progress while undergoing practical training are subject to the same disciplinary regulations as attendance at the course. Prospective students must have passed the Leaving Certificate with Honours in Mathematics and passes in Applied Mathematics and Physics with Honours in one, Honours in English and another subject, and a pass in one other subject or the General Certificate of Education at Ordinary Level in the subjects English, Additional Pure Mathematics, Applied Mathematics, Physics and Chemistry or have attained an equivalent standard in each of these subjects (see Course W.S.S.). The duration of each session, the subjects of the Course and the allocation of hours per week to each subject are:—

**FIRST YEAR:** Beginning of September to end of June. Mathematics ( $7\frac{1}{2}$  hours), Applied Mathematics (8 hours), Physics (8 hours), Workshop Practice (3 hours), Drawing (3 hours), Industrial Organisation (1 hour), Philosophy (1 hour), General Studies (1 hour). Students are required to pass the General Certificate of Education at Advanced Level in Mathematics, Applied Mathematics and Physics at the end of the session. Practical Engineering Training: Beginning of July to the end of September.

**SECOND YEAR:** Beginning of October to mid-April. Mathematics ( $4\frac{1}{2}$  hours), Applied Mechanics ( $4\frac{1}{2}$  hours), Heat, Light and Sound (6 hours), Principles of Electricity (5 hours), Electrical Engineering (3 hours), Electronics ( $2\frac{1}{2}$  hours), Engineering Drawing (3 hours), Theory of Machines (1 hour), Properties and Strength of Materials (1 hour), Industrial Organisation (1 hour), Philosophy (1 hour). Students are required to pass the Part I Examination of the Institution of Electrical Engineers at the end of the session. Practical Engineering Training: Beginning of May to the end of August.

**THIRD YEAR:** Beginning of September to mid-April. Mathematics ( $4\frac{1}{2}$  hours), Engineering Physics (6 hours), Electrical Engineering:

## SANDWICH COURSES

Machines (6 hours), Measurements (5 hours), Circuit Theory ( $1\frac{1}{2}$  hours), Field Theory ( $1\frac{1}{2}$  hours), Electronics (6 hours), Industrial Organisation (1 hour), Philosophy (1 hour). Students are required to pass the Part II Examination of the Institution of Electrical Engineers at the end of the session. Practical Engineering Training: Beginning of May to the end of September.

**FOURTH YEAR:** Beginning of October to the end of June. Mathematics (3 hours), Electrical Engineering: Measurements (6 hours), Machines and Utilisation of Electrical Plant (8 hours), Circuit Theory (2 hours), Field Theory (3 hours), Electronics ( $8\frac{1}{2}$  hours), Industrial Organisation (1 hour), Philosophy (1 hour). Students sit the Part III Examination of the Institution of Electrical Engineers at the end of the session.

**SCHOLARSHIPS:** The City of Dublin Vocational Education Committee offers scholarships to various years of this Course. For details, see page 52 of this Prospectus.

The attention of students of the final year of the Course is directed to the Mallin Memorial Prize, which is described on page 52 of this Prospectus.

**Ref.: S.E.T.                      Electrical Engineering  
Technicians' Course**

*Teacher-in-Charge:* T. SHORT, A.M.I.E.E., GRAD.BRIT.I.R.E.

Fee: £10 per session.

This Course provides for the training of Electrical Engineering Technicians to meet the needs of Irish Industry. The Course is conducted over four stages and each stage consists of 15 weeks whole-time instruction. The Course prepares students for the Department of Education's examination in Advanced Electrical Engineering Practice, and also the City and Guilds of London Institute's Final Examination in Electrical Engineering Practice. Students are expected to sit the City and Guilds of London Institute Electrical Technicians' Certificate Examination at the end of the third year.

Prospective students will be selected only from second year Electrical Apprentices who have made satisfactory progress during their first two years of apprenticeship or from other applicants who are deemed to possess an equivalent standard of general and technical or scientific education.

The subjects of the Course and the allocation of hours per week to each subject are:—

### DAY COURSE

**FIRST YEAR:** Mathematics, 4; Applied Mathematics,  $3\frac{1}{2}$ ; Principles of Electricity, 9; Physics, 6; Drawing, 3; Workshop Practice, 3; Installation Theory, 2; English, 1; Social Science, 1.



## SANDWICH COURSES

SECOND YEAR : Mathematics, 4; Applied Mathematics,  $3\frac{1}{2}$ ; Principles of Electricity, 9; Physics, 6; Workshop Practice, 3; Drawing, 3; Installation Theory, 2; English, 1; Social Science, 1.

THIRD YEAR : Mathematics, 3; Applied Mathematics,  $1\frac{1}{2}$ ; Electrical Measurements,  $4\frac{1}{2}$ ; Physics,  $4\frac{1}{2}$ ; Workshop Practice, 3; Electrical Engineering, 5; Electronics,  $3\frac{1}{2}$ ; Circuit Theory, 2; Installation Theory, 2; Field Theory,  $1\frac{1}{2}$ ; English, 1; Social Science, 1.

FOURTH YEAR : Mathematics, 3; Applied Mathematics,  $1\frac{1}{2}$ ; Electrical Measurements,  $4\frac{1}{2}$ ; Physics,  $4\frac{1}{2}$ ; Workshop Practice, 3; Electrical Engineering, 5; Electronics,  $3\frac{1}{2}$ ; Circuit Theory, 2; Installation Theory, 2; Field Theory,  $1\frac{1}{2}$ ; English, 1; Social Science, 1.

### **Ref.: S.R.P.O. Post Office Engineering**

*Teacher-in-Charge:* T. P. O'BRIEN, A.M.BRIT.I.R.E.

Fee: £7 10s. 0d. per stage.

This Course is conducted by arrangement with the Department of Posts and Telegraphs and provides technical instruction for Post Office Technician Trainees. The scheme has the co-operation of the Irish Post Office Engineering Union. The course extends over three stages of whole-time instruction (10—15 weeks each) supplemented, between stages, by a correspondence course of approximately 30 weeks. The subjects of the Course and the allocation of hours to each subject are:—

FIRST YEAR : Electricity, 12; Physics,  $4\frac{1}{2}$ ; Mathematics, 6; English,  $2\frac{1}{2}$ ; Irish, 1; Drawing, 3; Religious Knowledge, 1; Tutorial, 3.

SECOND AND THIRD YEARS : Electricity,  $7\frac{1}{2}$ ; Physics,  $4\frac{1}{2}$ ; Electronics,  $7\frac{1}{2}$ ; Mathematics, 6; English, 3; Irish, 1; Religious Knowledge, 1; Tutorial,  $2\frac{1}{2}$ .

EXTERNAL AREAS : Technician Trainees from external areas are admitted under special fees by arrangement with the Vocational Education Committees concerned.

The Department of Posts and Telegraphs and the Irish Post Office Engineering Union both offer prizes for students in each year of the Course. See page 53 for details.

### **Ref.: S.E.S.B. Electrical Installation Work**

*Teacher-in-Charge:* L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

Fee: £7 10s. 0d. per stage.

This Course provides for the full technical training of Apprentice Electricians and has the co-operation of the Trade Unions and employers such as the Electricity Supply Board, Bord na Mona and the Irish Sugar Company. Apprentices receive one term's instruction

## SANDWICH COURSES

(10-15 weeks—33 hours per week) during each of the first four years of apprenticeship. Each stage of whole-time instruction is associated with a correspondence course carried on over an additional period of approximately 35 weeks. The syllabuses of instruction are based on those of the Department of Education for Electrical Installation Work and Electrical Engineering Practice. The subjects of the Course and the allocation of hours are as follows for each year of the Course: Practical Installation and Cable Jointing, 6 or 9; Electricity, 5 or 8; Installation Theory, 1; Engineering Science, 3; Drawing, 3; Mathematics, 6 or 3; Workshop Practice and Technology,  $6\frac{3}{4}$ ; English,  $1\frac{1}{2}$ ; Religious Knowledge,  $\frac{1}{2}$ .

Students are required to sit the following examinations of the Department of Education: *At end of Second Stage*: Electrical Engineering Practice, Elementary D.C. and A.C., and Junior Trade Certificate in Electrical Installation Work (Theory and Practical). *At end of Third Stage*: Electrical Engineering Practice, Intermediate D.C. *At end of Fourth Stage*: Electrical Engineering Practice, Intermediate A.C., and Senior Trade Certificates in Electrical Installation Work (Theory and Practical).

**EXTERNAL AREAS**: Student Apprentices from External Areas are admitted under special fees by arrangement with the Vocational Education Committee concerned.

The Electricity Supply Board offers prizes for students of the Course. See page 53 for details.

**Ref.: S.E.A.L. Aircraft Electrical Practice**

*Teacher-in-Charge*: J. J. FARRELL, GRAD.I.E.E.

Fee: £20 per session.

This Course provides for the full technical training of Apprentice Electricians in the Aircraft Industry, and has the co-operation of the Trade Unions and Aer Lingus Teoranta.

The Course extends over a period of four sessions. The subjects of the Course and the allocation of hours per week to each subject are as follows:—

**FIRST AND SECOND YEARS**: Electrical Principles ( $7\frac{1}{2}$  hours), Practical Installation Work ( $3\frac{1}{2}$  hours), Aircraft Installations (3 hours), Metalwork ( $3\frac{1}{2}$  hours), Mathematics (3 hours), Engineering Science (3 hours), General Studies (3 hours), Drawing (3 hours), Social Science (1 hour), and Physical Training (1 hour).

**THIRD AND FOURTH YEARS**: Electrical Engineering Practice, 8; Electronics,  $3\frac{1}{2}$ ; Aircraft Installations, 3; Practical Installation Work,  $3\frac{1}{2}$ ; Metalwork,  $3\frac{1}{2}$ ; Mathematics, 3; Engineering Science, 2; General Studies, 3; Drawing, 2; Social Science, 1.



**EXTERNAL EXAMINATIONS :** At the end of each session students are expected to sit for the external examinations as stipulated below.

**FIRST YEAR :** Department of Education Examinations in Electrical Engineering D.C. (Elementary), Electrical Installation Work (Junior) Practical, Mathematics (Elementary), Machine Drawing (Elementary).

**SECOND YEAR :** Department of Education Examinations in Electrical Engineering A.C. (Elementary) and D.C. (Intermediate), Electrical Installation Work (Junior) Written, Mathematics (Intermediate), Fitters' Work (Junior).

City and Guilds of London Institute Examinations in Electrical Engineering D.C. (Intermediate), Aircraft Electrical Practice (Part I), Electrical Technicians' Examination (Intermediate).

**THIRD YEAR :** Department of Education Examinations in Electrical Engineering A.C. (Intermediate), Machine Drawing (Intermediate), Electrical Installation Work, Written and Practical (Senior).

City and Guilds of London Institute Examinations in Electrical Engineering A.C. (Intermediate), Electrical Installation Work (Course B).

**FOURTH YEAR :** City and Guilds of London Institute Examinations in Aircraft Electrical Practice (Part II), Electrical Installation Work (Course C), Electrical Technicians' Course (Final).

**Ref. : S.E.M.S.      Electrical Installation Work  
(Special Summer Course)**

*Teacher-in-Charge :* L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

A special summer Course of 4-5 weeks whole-time instruction is provided for apprentice electricians employed by Bord na Mona and Comhlucht Siuicre Eireann Teo. The Course consists of four such stages, which are conducted in the College commencing early in July each year. At the end of the second stage of the Course, students sit the Department of Education's Junior Trade Certificate Examination in Electrical Installation Work (Theory and Practical) and Elementary D.C. and at the end of the fourth stage they sit the Senior Trade Certificate Examination and Elementary A.C.

Fees for the Course are specially arranged with the companies and the Vocational Education Committees for the areas in which the students normally reside.

## PART-TIME DAY RELEASE COURSES

**Ref.: P.E.I.      Electrical Installation Work**

Fee: £5 per session.

This Course, conducted on one or more full days and two or three evenings per week, provides technical training for Electrical Apprentices.

### FIRST YEAR

*Teacher-in-Charge*: R. KELLY.

#### GROUP (A)

Day	Time	Subject	Room	Teacher
Monday	7.30-10.00	Engineering Science I - -	8a	P. O'Shea T. Mahon
Wednesday	7.30- 9.00	Drawing - - - -	14	J. Connell
	9.00-10.30	Engineering Materials - -	14	J. Connell
Friday	9.00-10.00	Electricity - - - -	4	P. O'Shea
	10.00-10.30	Religious Knowledge - -	4	Rev. M. J. Morahan, S.J.
	10.30-12.30	Electricity - - - -	4	P. O'Shea
	2.00- 3.00	English and Technical Reports -	4	B. Conway
	3.00- 5.00	Practical Mathematics - -	4	—
	7.30-10.00	Practical Installation I - -	33	D. McManus

#### GROUP (B)

Day	Time	Subject	Room	Teacher
Wednesday	7.30- 9.00	Drawing - - - -	14	J. Connell
	9.00-10.00	Engineering Materials - -	14	J. Connell
Thursday	7.30-10.00	Engineering Science - -	4	P. O'Shea
Friday	9.00-10.00	English and Technical Reports -	4	B. Conway
	10.00-10.30	Religious Knowledge - -	4	Rev. P. Dunne, S.J.
	10.30-12.30	Practical Mathematics - -	5	—
	2.00- 5.00	Electricity - - - -	3	L. Trundle
	7.30-10.00	Practical Installation I - -	33	D. McManus



## PART-TIME DAY RELEASE COURSES

### SECOND YEAR

*Teacher-in-Charge*: R. KELLY, Full Technological Certificate  
(E.E.P.) (City and Guilds of London Institute).

#### GROUP (A)

Day	Time	Subject	Room	Teacher
Tuesday	9.00-12.30	Electricity - - - -	4	R. Kelly
	12.00-12.30	Religious Knowledge - -	4	Rev. P. Dunne, S.J.
	2.00- 3.00	English and Technical Reports -	4	B. Conway
	3.00- 5.00	Practical Mathematics - -	4	—
	7.30- 9.00	Drawing - - - -	14	D. Naessens
	9.00-10.00	Engineering Materials - -	14	D. Naessens
Wednesday	7.30-10.00	Practical Installation II - -	33	I. Tighe
Friday	7.30-10.00	Engineering Science II - -	5	A. Ryan

#### GROUP (B)

Day	Time	Subject	Room	Teacher
Tuesday	9.00-10.00	English and Technical Reports -	4	B. Conway
	10.00-12.00	Practical Mathematics - -	5	J. C. Calnan
	12.00-12.30	Religious Knowledge - -	4	Rev. P. Dunne, S.J.
	2.00- 5.00	Electricity - - - -	5	—
	7.30- 9.00	Drawing - - - -	14	D. Naessens
	9.00-10.30	Engineering Materials - -	14	D. Naessens
Wednesday	7.30-10.00	Practical Installation—II - -	33	I. Tighe
Friday	7.30-10.00	Engineering Science II - -	5	A. Ryan

At the end of the second year students are required to sit the Electrical Installation Work Junior Written and Practical and Electrical Engineering Practice D.C. Elementary examinations of the Department of Education, and may sit the City and Guilds of London Institute Electrical Technicians' Intermediate examination.

## PART-TIME DAY RELEASE COURSES

Students who successfully complete the second year of the Course and pass with honours in the day class examination may be permitted to enrol in the Part-time Day Senior Science Course, P.S.S., with a view to subsequent enrolment in the Part-time Day Electrical Engineering Course, P.E.E.

### THIRD YEAR

*Teacher-in-Charge:* M. FARRELL, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

#### GROUP (A)

Day	Time	Subject	Room	Teacher
Tuesday	7.30-10.00	Practical Installation III - -	33	I. Tighe
Wednesday	9.00-10.30	Electricity - - -	3	J. Downes
	10.30-11.00	Religious Knowledge - -	5	Rev. P. Dunne, S.J.
	11.30-12.30	Electricity - - -	3, 6	M. Farrell, R. Kelly
	2.00- 3.00	Electricity - - -	3	—
	3.00- 4.00	Electricity - - -	3	P. O'Shea
	4.00- 5.00	English - - -	5	—
Thursday	7.30- 9.30	Mathematics M1.3 - -	8c	—
Friday	7.30- 9.00	Engineering Science III - -	4	V. Duggan
	9.00-10.00	Electrical Installation III - -	4	V. Duggan

#### GROUP (B)

Day	Time	Subject	Room	Teacher
Tuesday	7.30-10.00	Practical Installation III - -	33	—
Wednesday	9.00-10.30	Electricity - - -	5, 6	M. Farrell, R. Kelly
	10.30-11.00	Religious Knowledge - -	5	Rev. P. Dunne, S.J.
	11.00-12.30	Electricity - - -	5	—
	2.00- 3.00	Electricity - - -	5	P. O'Shea
	3.00- 4.00	Electricity - - -	5	—
	4.00- 5.00	English - - -	5	—
Thursday	7.30- 9.30	Mathematics M1.3 - -	8c	—
Friday	7.30- 9.00	Engineering Science III - -	4	V. Duggan
	9.00-10.00	Electrical Installation III - -	4	V. Duggan

At the end of this year students are required to sit the Electrical Installation Work Senior Written and Practical and the Electrical Engineering Practice D.C. Intermediate and A.C. Elementary examinations of the Department of Education and are expected to sit the Electrical Installation Work Course B examination of the City and Guilds of London Institute.



## PART-TIME DAY RELEASE COURSES

*Teacher-in-Charge* : J. J. FARRELL, GRAD.I.E.E.

FOURTH YEAR

### GROUP (A)

Day	Time	Subject	Room	Teacher
Monday	7.30-10.00	Electrical Power Equipment -	5	M. Ryan
Tuesday	9.00-12.30	Testing Methods (Power)—Laboratory - - - -	4, 6	J. J. Farrell
	2.00- 5.00	Electrical Power Equipment—Laboratory - - - -		
Thursday			4, 6	J. J. Farrell,
				M. Farrell
	9.00-10.30	Testing Methods (Power) - -	3	J. J. Farrell
	10.30-11.00	Religious Knowledge - -	3	Rev. M. J. Morahan, S.J.
	11.00-12.30	Electrical Power Equipment -	3	M. Farrell
	2.00- 3.30	Testing Methods (Power) - -	3	J. J. Farrell
Friday	3.30- 5.00	Electrical Power Equipment -	3	M. Farrell
	7.30-10.00	Mathematics M1.4 - - -	19	—
	7.30-10.00	Electrical Engineering Practice (Special Techniques) - -	15	S. Homan

### GROUP (B)

Day	Time	Subject	Room	Teacher
Monday	7.30-10.00	Electrical Power Equipment -	5	M. Ryan
Thursday	9.00-10.30	Electrical Power Equipment -	19	M. Ryan
	10.30-11.00	Religious Knowledge - -	3	Rev. M. J. Morahan, S.J.
	11.00-12.30	Testing Methods (Power) - -	19	J. J. Farrell
	2.00- 3.30	Electrical Power Equipment -	5	M. Farrell
	3.30- 5.00	Testing Methods (Power) - -	5	J. J. Farrell
	7.30-10.00	Mathematics M1.4 - - -	19	—
	7.30-10.00	Electrical Engineering Practice (Special Techniques) -	15	S. Homan

At the end of this year of the Course all students are required to sit the Electrical Engineering Practice, A.C. Intermediate Examination of the Department of Education and the Electrical Installation Work, Course C, Examination of the City and Guilds of London Institute. Students in Group (A) also sit the City and Guilds of London Institute Electrical Technicians' Final Examination.

*Ref.* : P.E.H.

**Electrical Housecraft**

October—May.

Fee : £7 10s. 0d. per session.

*Teacher-in-Charge* : L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

This Course is designed to meet the requirements of E.S.B. trainee demonstrators, and of other ladies, who wish to sit for the Electrical Housecraft Certificate Examination of the Electrical Association for Women, London. The Course will be conducted on one half-day (3 hours) per week during one session. Prospective students must

## PART-TIME DAY RELEASE COURSES

hold approved qualifications in Domestic Science subjects or Hotel and Catering subjects or in Institutional Management.

**Ref.: P.E.E.      Electrical Engineering**

September—June

Fee: £7 10s. 0d. per session.

*Teacher-in-Charge:* T. SHORT, A.M.I.E.E., GRAD.BRIT.I.R.E.

This Course prepares students for the Graduateship Examination of the Institution of Electrical Engineers (Grad.I.E.E.) and is conducted on one full day and two evenings per week. It is provided for electrical apprentices and others in electrical engineering employment who satisfy the regulations for student membership of the I.E.E. The course is approved by the Institution of Electrical Engineers as suitable for preparation for entry to the Institution's examinations.

The attention of prospective students is directed to Course No. E1.0 on page 41 of this Prospectus and to the corresponding Day Release Course P.S.S. on page 28.

### FIRST YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00- 8.30	Mathematics - - - -	—	P. Gallagher
	8.30-10.00	Physics - - - -	—	—
Wednesday	7.00- 8.30	Physics - - - -	—	—
	8.30-10.00	Mathematics - - - -	—	P. Gallagher
Friday	9.00-10.00	Mathematics - - - -	—	P. Gallagher
	10.00-12.30	Drawing - - - -	—	—
	2.00- 5.00	Physics - - - -	—	—

### SECOND YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00- 8.30	Electricity - - - -	17	T. Short
	8.30-10.00	Applied Mechanics - - - -	17	P. G. Macnamara
Wednesday	7.00- 8.30	Electricity - - - -	—	T. Short
	8.30-10.00	Applied Mechanics - - - -	—	P. G. Macnamara
Friday	9.00-10.30	Mathematics - - - -	—	—
	10.30-12.30	Drawing - - - -	—	—
	2.00- 3.00	Physics - - - -	—	—
	3.00- 5.00	Laboratory - - - -	—	T. Cronin, J. M. Flood



## PART-TIME DAY RELEASE COURSES

### THIRD AND FOURTH YEARS

Day	Time	Subject	Room	Teacher
Monday	7.00- 8.30	Mathematics - - - -	—	P. G. Macnamara
	8.30-10.00	Electrical Machines - - -	—	T. Short
Wednesday	7.00- 8.30	Mathematics - - - -	—	P. G. Macnamara
	8.30-10.00	Electronics - - - -	—	B. J. O'Connor
Friday	9.00-10.00	Field Theory - - - -	—	—
	10.00-11.30	Physics - - - -	—	—
	11.30-12.30	Circuit Theory - - - -	—	—
	2.00- 5.00	Laboratory - - - -	—	T. Short F. Brennan, T. O'Flaherty

### FIFTH AND SIXTH YEARS

Day	Time	Subject	Room	Teacher
Monday	7.00- 8.30	Mathematics - - - -	—	—
	8.30-10.00	Utilisation of Electrical Energy -	—	—
Wednesday	7.00- 8.30	Electronics - - - -	—	B. J. O'Connor
	8.30-10.00	Measurements - - - -	—	T. Short
Friday	9.00-12.30	Circuit Theory and Electronics -	—	B. J. O'Connor
		or Field Theory and Measurements -	—	T. Short,
	2.00- 5.00	Laboratory - - - -	—	T. Short F. Brennan, T. O'Flaherty

### *Ref.:* P.R.C. Projection Science for Cinema Apprentice Operators

(Session: October to May).

*Teacher-in-Charge:* B. J. O'CONNOR, A.M.BRIT.I.R.E.

Fee: £3 10s. 0d. per session.

The Course provides technical training for Cinema Apprentices employed in the Dublin Area, and is organised in co-operation with the Irish Transport and General Workers' Union (Cinema Branch), and the Theatre and Cinema Association (Ireland). The Course extends over three Sessions and provides a minimum of five hours of instruction per week in English, Mathematics, General Science, Electricity, Light and Sound Equipment. An apprentice operator is permitted a maximum of five sessions to complete the course satisfactorily.

FIRST YEAR: English, Mathematics, and General Science: Monday, Wednesday and Thursday, 10.30-12.30.

SECOND YEAR: Electricity and Light: Tuesday and Friday, 10-12.30.

THIRD YEAR: Electricity and Sound Equipment: Tuesday and Friday, 10-12.30.

## PART-TIME DAY RELEASE COURSES

The Theatre and Cinema Association (Ireland) and the Irish Transport and General Workers' Union offer prizes for students of the Course. See page 53 for details.

**Ref.: P.S.B.**

### Bakery Practice

*Teacher-in-Charge:* S. ANTHONY, F.I.B.E.,

TECH.DIP. CITY AND GUILDS.

Fee: £3 10s. 0d. per session.

The Courses provide instruction in Breadmaking and Flour Confectionery for Bakery Apprentices.

Day	Time	Subject	Room	Teacher
Monday	9.30-12.30	} Bakery Practice II - -	20	—
	2.00-5.00			
	7.00-7.45		28	K. Halloran
	7.45-8.15		28	Rev. P. Dunne, S.J.
Tuesday	8.15-10.00	} Bakery Science IV - -	28	R. A. D'Arcy
	9.00-12.30			
	2.00-5.00		20	S. Anthony
	7.00-7.45		20	K. T. O'Halloran
	7.45-8.15		20	Rev. P. Dunne, S.J.
Wednesday	8.15-10.00	} Bakery Science II - -	20	—
	9.30-12.30			
	2.00-5.00		20	S. Anthony
	7.00-7.45		17	K. T. O'Halloran
	7.45-8.15		17	Rev. P. Dunne, S.J.
Thursday	8.15-10.00	} Bakery Science I - -	17	—
	9.00-12.30			
	2.00-5.00		20	S. Anthony
	7.00-7.45		28	K. Halloran
	7.45-8.15		28	Rev. P. Dunne, S.J.
Friday	8.15-10.00	} Bakery Science III - -	28	R. A. D'Arcy
	9.00-12.30			
	2.00-5.00		20	—

Students sit the Intermediate Examination in Breadmaking and Flour Confectionery of the City and Guilds of London Institute at the end of the second year and the Final Examinations in Breadmaking, Flour Confectionery and Bakery Science, at the end of the fourth year of the Course. The Irish Bakers', Confectioners' and Allied Workers' Union, the Dublin Master Bakers' Committee and the Guild of Irish Bakers, offer cups and prizes for students of the Course. See page 54 for details.

**Ref.: P.S.L.**

### Laboratory Technicians' Work

*Teacher-in-Charge:* L. BREEN, B.S.C., DIP.CHEM.TECH.

Fee: £3 10s. 0d. per session.

This Course provides training for laboratory attendants and assistants who work in universities, research institutes, industrial firms and schools and is primarily intended for those working in chemical



## PART-TIME DAY RELEASE COURSES

laboratories. Students sit the Intermediate examination of the City and Guilds of London Institute in Laboratory Technicians' Work at the end of the course. Classes are conducted on two half-days and two evenings per week over a period of three sessions of approximately 34 weeks each. Prospective students should be at least 16 years of age and have the Vocational Certificate (Manual Training Group) in approved subjects or the Intermediate Certificate (Secondary Schools).

This Course is approved by the Institute of Chemistry of Ireland, and successful students of the Course will be eligible for enrolment as recognised Laboratory Technicians by the Institute of Chemistry of Ireland.

1ST TERM: September 14th—November 27th.

2ND TERM: November 30th—February 26th.

3RD TERM: March 1st—June 4th.

### FIRST YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00–10.00	Glassblowing (1st Term) - -	1	W. G. Brady
		Metalwork (2nd and 3rd Terms) -	1	P. Connell
Tuesday	2.00– 5.00	Chemistry - - - -	22	L. Breen
Wednesday	2.00– 3.00	English - - - -	12	B. Conway
	3.00– 5.00	Physics - - - -	12	L. Breen
Friday	7.00– 8.30	Mathematics - - - -	14	D. Naessens
	8.30–10.00	Drawing - - - -	14	D. Naessens

### SECOND YEAR

Day	Time	Subject	Room	Teacher
Monday	2.00– 5.00	Chemistry (1st Term) - -	22	L. Breen
		Electricity (2nd and 3rd Terms) -	—	L. Breen
Thursday	2.00– 3.00	English - - - -	12	B. Conway
	3.00– 5.00	Physics - - - -	12	L. Breen
Friday	7.00–10.00	Maths. and Drawing (1st Term) -	14	D. Naessens
	7.00–10.00	Biology (2nd and 3rd Terms) -	—	—
	7.00–10.00	Metalwork (1st Term) - -	1	N. Goulding
		Woodwork and Plastics (2nd Term)	1	P. Masterson, B. Dunne
		Glassblowing (3rd Term) - -	1	W. G. Brady

# PART-TIME DAY RELEASE COURSES

## THIRD YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00-10.00	Specialised Lab. Techniques -	22	L. Breen
Wednesday	9.30-12.30	Electricity (1st and 2nd Terms) -	15	F. Nolan
		Photography (3rd Term) -	15	F. Nolan
Friday	2.00- 5.00	Physics (Light) (1st Term) -	8a	L. Breen
		Lab. Organisation (2nd Term) -	8a	L. Breen
		Specialised Laboratory Techniques (3rd Term) -	22	L. Breen
	7.00-10.00	Metalwork (1st Term) -	1	P. Connell
		Woodwork and Plastics (2nd Term)	1	P. Masterson, B. Dunne
		Glassblowing (3rd Term) -	1	W. G. Brady

**Ref.: P.S.S. Senior Science Course**

*Teacher-in-Charge*: M. J. SHEEHY, B.Sc., A.INST.P.

Fee: £5 per session.

This one-year Course prepares students for the General Certificate of Education Examination at Ordinary Level in the subjects Additional Pure Mathematics, Physics and Chemistry or Applied Mathematics. Prospective students should have already obtained, as a minimum, the Day Vocational Certificate (Manual Training Group) of the Department of Education with passes in Irish, English, Mathematics, Mechanical Drawing, Mechanics and Heat or Magnetism and Electricity, and Metalwork or Woodwork, or the Intermediate Certificate of the Department of Education. All applicants for the Course will be required to pass an entrance examination.

Day	Time	Subject	Room	Teacher
Wednesday	2.0-4.0	Physics - - - -	24	P. A. Start
	4.0-5.0	Mathematics - - - -	24	—
Friday	2.0-4.0	Chemistry or - - - -	24	P. A. Start
		Applied Mathematics - -	17	—
	4.0-5.0	Mathematics - - - -	24	—

Students also attended the evening classes of Course S3.1 or Course E1.0

**Ref.: P.S.I. Intermediate B.Sc. Course**

*Teacher-in-Charge*: W. BRODERICK, M.Sc., H.DIP.ED., M.I.C.I.

Fee: £7 10s. 0d. per session.

This one-year Course prepares students for the General Certificate of Education at Advanced Level in Mathematics, Physics and Chemistry. Prospective students must have passed in English, Additional Pure Mathematics, Physics and Chemistry at Ordinary Level or have attained an approved equivalent standard in these subjects.



## PART-TIME DAY RELEASE COURSES

Day	Time	Subject	Room	Teacher
Monday	7.00- 8.30	Mathematics - - - -	—	P. Gallagher
	8.30-10.00	Physics - - - -	—	—
Tuesday	7.30- 9.30	Chemistry - - - -	—	E. J. Rothery
Wednesday	7.00- 8.30	Physics - - - -	—	—
	8.30-10.00	Mathematics - - - -	—	P. Gallagher
Friday	9.00-10.00	Mathematics - - - -	—	P. Gallagher
	10.00-12.30	Chemistry - - - -	—	E. J. Rothery
	2.00- 5.00	Physics - - - -	—	—

**Ref.: P.S.D.I. Part 1, B.Sc. Course**

**Teacher-in-Charge:** E. J. ROTHERY, B.Sc., F.I.C.I., A.R.I.C.

**Fee:** £7 10s. 0d. per session.

This one-year Course prepares students for the Part 1 Examination of the University of London External B.Sc. Degree in Mathematics, Physics and Chemistry. Prospective students must have satisfied the minimum entrance requirements of the University of London and have passed in Mathematics, Physics and Chemistry at Advanced Level in the General Certificate of Education Examinations. In certain circumstances, two passes at Advanced Level and one pass at Ordinary Level at an Advanced Level examination may be accepted.

Day	Time	Subject	Room	Teacher
Tuesday	9.00-10.30	Chemistry (Lab.) - - - -	21	E. J. Rothery
	10.30-11.30	Chemistry - - - -	21	E. J. Rothery
Thursday	11.30-12.30	Mathematics - - - -	21	T. Ambrose
	2.00- 3.30	Mathematics - - - -	24	T. Ambrose
	3.30- 5.00	Physics - - - -	24	F. Nolan

Students also attend evening classes of Course S4.1.

**Ref.: P.S.D.II. Part II (Final), B.Sc. Course**

**Teacher-in-Charge:** E. J. ROTHERY, B.Sc., F.I.C.I., A.R.I.C.

**Fee:** £10 per session.

This three-year Course prepares students for the Part II (Final) External B.Sc. Degree Examination of the University of London in Chemistry, Physics and Mathematics.

Day	Time	Subject	Room	Teacher
Tuesday	9.00-10.30	Chemistry (Lab.) - - - -	21	E. J. Rothery
	10.30-11.30	Mathematics - - - -	23	T. Ambrose
	11.30-12.30	Chemistry - - - -	23	E. J. Rothery
Thursday	2.00- 3.30	Chemistry - - - -	21	E. J. Rothery
	3.30- 5.00	Mathematics - - - -	21	T. Ambrose

**OR**

Thursday	9.00-12.30	Physics - - - -	16	J. P. Roche
	2.00- 3.30	Physics - - - -	4	J. P. Roche
	3.30- 5.00	Mathematics - - - -	21	T. Ambrose
Friday	2.00- 3.30	Applied Mathematics - -	11	T. Ambrose

Students also attend evening classes of Course S4.2.

## EVENING COURSES

### GENERAL EDUCATION COURSES IN OTHER TECHNICAL INSTITUTES

The attention of prospective students who have not attained the appropriate educational entrance standard for admission to courses in this College is directed to the following courses offered in other Institutes :—

1. PRE-SPECIALISATION COURSES AT THE TECHNICAL INSTITUTES, CLOGHER ROAD, KILLESTER, AND MOUNT STREET for entry to trade courses.
2. PREPARATORY COURSE AT THE TECHNICAL INSTITUTE, MOUNT STREET, for entry to General Certificate of Education Courses (Nos. S3.1 and E1.0).

At the end of the above courses a qualifying examination will be held in this College for admission to the appropriate courses in this College next session.

3. MATRICULATION COURSE AT THE COLLEGE OF COMMERCE, RATHMINES, AND THE TECHNICAL SCHOOL, EMMET ROAD, INCHICORE.

### DEPARTMENT OF MATHEMATICS

FEES : Courses Nos. M1.-M2.—£2 each per session.

Courses Nos. M3.-M4.—£3 each per session.

#### MATHEMATICS FOR ENGINEERING PRACTICE AND TRADES

No. of Course	Day	Time	Subject	Room	Teacher
M1.1	Friday	7.30- 9.30	Practical Mathematics I	20	—
M1.2	Wed.	7.30- 9.30	Do.	11	19
M1.3	Thursday	7.30- 9.30	Do.	III	8c
M1.4	Thursday	7.30-10.00	Do.	IV	19
M1.5	Friday	8.30-10.00	Do.	V	11W L. Healy
M1.6	Friday	7.00- 8.30	Do.	VI	10W L. Healy

Students are required to sit the Department of Education Examinations in Mathematics, Elementary, at the end of Stage II; Mathematics, Intermediate, at the end of Stage IV and Mathematics Advanced at the end of Stage VI.

#### MATHEMATICS FOR TELECOMMUNICATIONS (Including Radio Service Work and Post Office Engineering)

No. of Course	Day	Time	Subject	Room	Teacher
M2.1	Wed.	7.00- 8.30	Mathematics for Telecommunications (Elementary)	8c	—
M2.2	Wed.	8.30-10.00	do.	8c	—
M2.3	Wed.	7.00- 8.30	Mathematics for Telecommunications I	11	E. D. Doyle
M2.4	Wed.	8.30-10.00	do.	11	E. D. Doyle
M2.5	Thursday	7.30-10.00	Mathematics for Telecommunications II	15	E. D. Doyle
M2.6	Tuesday	7.30-10.00	Mathematics for Telecommunications III	28	—

Students are required to sit the City and Guilds of London Institute Examinations in Mathematics for Telecommunications A, B and C at the end of Stages I, II and III, respectively.



## EVENING COURSES

### MATHEMATICS FOR ENGINEERING

No. of Course	Day	Time	Subject	Room	Teacher
M3.1	Tuesday	7.00-10.00	Mathematics for Engineering I - - -	11	---
M3.2	Monday	8.30-10.00	Do. II - - -	17	P. G. Macnamara
	Wed.	8.30-10.00		28	P. G. Macnamara
M3.3	Monday	7.00- 8.30	Do. III, IV - -	15	P. G. Macnamara
	Wed.	7.00- 8.30		13	P. G. Macnamara
M3.4	Monday	7.00- 8.30	Do. V, VI - -	—	

Students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics (Ordinary Level) at the end of the first stage. Stages II and III each extend over two sessions. The Joint Part I Examination in Mathematics of the professional engineering institutions may be taken on completing the two sessions of Stage II, and the Part II Examination of the Institution of Electrical Engineers on completing the two sessions of Stage III by registered students.

The Department of Education Examinations in Mathematics (Higher Technological Certificate) may be taken on completing the two sessions of Stage III.

### MATHEMATICS FOR SCIENCE

No. of Course	Day	Time	Subject	Room	Teacher
M4.1	Friday	7.00-10.00	Mathematics I - - -	12	E. J. McLaughlin
M4.2	Wed.	7.00- 8.00		15	---
	Friday	8.00-10.00	Do. II - - -	25	---
M4.3	Wed.	8.00-10.00		17	---
	Friday	7.00- 8.00	Do. III - - -		---
M4.4	Tuesday	7.00-10.00	Do. IV - - -		T. Ambrose
M4.5	Wed.	7.00-10.00	Do. V - - -	13	T. Ambrose

Students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics, Ordinary Level, at the end of the first stage and the Advanced Level at the end of the third stage. On completing the two sessions of Stage IV students sit the Part I examination in Mathematics of the University of London External B.Sc. Degree.

## DEPARTMENT OF CHEMISTRY AND BIOLOGY

### B.Sc. DEGREE COURSE (UNIVERSITY OF LONDON)

This Course is provided for students who wish to sit for the University of London external B.Sc. Degree (General). Conditions for entry to the Course are the same as for the part-time Senior Science Course (P.S.S.) as described on page 28. Students should arrange to comply with the regulations for registration as external students of the University of London as soon as possible and should obtain copies of the regulations relating to University Entrance Requirements from the Secretary to the University Entrance and School Examinations Council, University of London, Senate House, London, W.C.1.

The Course extends over at least seven sessions. At the end of the first year students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics, Physics and

## EVENING COURSES

Chemistry at Ordinary Level and at the end of the third year the General Certificate of Education in the same subjects at Advanced Level. Passes in these three subjects at Advanced Level, together with a pass in English at Ordinary Level, will satisfy the University of London requirements for the purpose of proceeding to the B.Sc. Degree.

September-May—Fee, £4 per session.

### GENERAL CERTIFICATE OF EDUCATION—ORDINARY LEVEL

*Teacher-in-Charge* : M. J. SHEEHY, B.S.C., A.INST.P.

No. of Course	Day	Time	Subject	Room	Teacher
S3.1 <i>Tues.</i>  <i>Wed.</i>  <i>Thurs.</i>	Thursday	7.00–10.00	Physics I - - -	12 10	M. J. Sheehy
	<del>Wed.</del>	7.00–10.00	Chemistry I - - -	25, 22	L. Breen
			or		
	Friday	7.00–10.00	Chemistry IA - - -	25, 22	J. C. Calnan
	Tuesday	7.00–10.00	Mathematics M4.1 - - -	12	—
	Monday	7.00–10.00	English (optional) - - -	14	T. A. G. Dowling

### GENERAL CERTIFICATE OF EDUCATION—ADVANCED LEVEL

*Teacher-in-Charge* : W. BRODERICK, M.S.C., H.DIP.ED., M.I.C.I.

No. of Course	Day	Time	Subject	Room	Teacher
S3.2	Tuesday	7.00–8.00	Physics II - - -	—	—
		8.00–10.00	Chemistry II - - -	—	F. Hill
	Wed.	7.00–8.00	Mathematics M4.2 - - -	15	—
		8.00–10.00	Physics II - - -	16	—
	Friday	7.00–8.00	Chemistry II - - -	25	F. Hill
		8.00–10.00	Mathematics M4.2 - - -	25	—

No. of Course	Day	Time	Subject	Room	Teacher
S3.3	Tuesday	7.00–8.00	Chemistry III - - -	—	F. Hill
		8.00–10.00	Physics III - - -	—	—
	Wed.	7.00–8.00	Physics III - - -	17	—
		8.00–10.00	Mathematics M4.3 - - -	17	—
	Friday	7.00–8.00	Mathematics M4.3 - - -	—	—
		8.00–10.00	Chemistry III - - -	—	F. Hill

For details of the Foy Scholarship in Applied Chemistry, see page 52.



## EVENING COURSES

### Part I, B.Sc. Course

*Teacher-in-Charge* : E. J. ROTHERY, B.Sc., F.I.C.I., A.R.I.C.

Fee: £4 per session.

This Course extends over two sessions.

Prospective students must have satisfied the minimum entrance requirements of the University of London for the B.Sc. degree and have passed in Mathematics, Physics and Chemistry at Advanced Level. In certain circumstances, two passes at Advanced Level and a pass at Ordinary Level at an Advanced Level examination may be accepted.

No. of Course	Day	Time	Subject	Room	Teacher
S4.1	Monday	7.00-10.00	Physics IV - - -	15, 16	F. Nolan
	Thursday	7.00-10.00	Chemistry IV - - -	21	E. J. Rothery
	Tuesday	7.00-10.00	Mathematics M4.4 -	27	T. Ambrose

### Part II (Final), B.Sc. Course

*Teacher-in-Charge* : E. J. ROTHERY, B.Sc., F.I.C.I., A.R.I.C.

Fee: £6 per session.

This Course extends over three sessions and prepares students for the B.Sc. Degree (External) of the University of London in Chemistry and Mathematics.

No. of Course	Time	Day	Subject	Room	Teacher
S4.2	7.00-10.00	Monday	Chemistry V - - -	21	P. A. Start
	7.00-10.00	Tuesday	Statistics - - -	18	D. Harrington
	7.00-10.00	Wed.	Mathematics M4.5 -	13	T. Ambrose

The attention of all students of Course Nos. S3.1-S4.2 is directed to the part-time day courses P.S.S., P.S.I., P.S.D. I, and P.S.D. II, described on pages 28-29 of this Prospectus.

## MICROBIOLOGY

### Diploma Course

September—May

*Teacher-in-Charge* : MISS F. DOHERTY, B.Sc., B.A. (MOD.).

Fee: £10 per session.

This Course extends over two years and is held on two evenings per week. A Diploma will be issued to successful students. Details regarding entry standard, syllabus content, etc., may be

## EVENING COURSES

obtained by applying in writing to the Principal. Students will be enrolled in the first year of the Course in alternate sessions.

### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S6.1	Tuesday Thursday	7.00-10.00	General Principles of Microbiology	23, 28	Miss F. Doherty

### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S6.2	Tuesday Thursday	7.00-10.00	Applied Microbiology	23, 28	Miss F. Doherty

## DENTAL MECHANICS

Fee: £3 10s. 0d. per session.

This course conducted on one half-day and two or three evenings per week is provided for apprentices employed in Dental Laboratories and extends over five sessions. At the end of the third and fifth years students sit the Intermediate and Final Dental Technicians examinations respectively of the City and Guilds of London Institute. With the kind co-operation of the Board of Governors the classes in Dental Technology are held in the Dental Hospital.

The subjects of the course and the allocation of hours per week to each subject are:—

#### S1.1—FIRST YEAR

Morning Session : Physics,  $1\frac{1}{2}$ ; Chemistry,  $1\frac{1}{2}$ ; Social Science,  $\frac{1}{2}$ .

First Evening Session : Drawing,  $1\frac{1}{2}$ ; Mathematics, 1.

Second Evening Session : Dental Technology,  $2\frac{1}{2}$ .

Third Evening Session : Physics,  $1\frac{1}{2}$ ; Chemistry,  $1\frac{1}{2}$ .

#### S1.2—SECOND YEAR

Morning Session : Physics,  $1\frac{1}{2}$ ; Chemistry,  $1\frac{1}{2}$ ; Social Science,  $\frac{1}{2}$ .

First Evening Session : English, 1; Mathematics,  $1\frac{1}{2}$ .

Second Evening Session : Dental Technology,  $2\frac{1}{2}$ .

Third Evening Session : Physics,  $1\frac{1}{2}$ ; Chemistry,  $1\frac{1}{2}$ .

The subjects of the third and remaining years of the course will be published in the prospectus for the 1965/66 and succeeding sessions.



## EVENING COURSES

### MEDICAL LABORATORY TECHNOLOGY COURSE

This Course is provided for those employed in Medical Laboratories who wish to prepare for the Intermediate and Final Examinations of the Institute of Medical Laboratory Technology and who have satisfied the minimum entrance requirements for registered students of that Institute. The complete Course extends over seven sessions and with the exception of the first year, all classes are conducted in various Medical Laboratories with the co-operation of the Authorities concerned.

*Course Co-ordinator : MR. CYRIL KEOGH.*

**Fees :**

1st Year—£4 per annum.

2nd and 3rd Years—£5 per annum.

4th to 7th Year—£6 per annum.

#### PRELIMINARY COURSE, 1ST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S5.1	Monday	7.00- 8.30	Biology - - -		
		8.30-10.00	Physics - - -		
	Wed.	7.00- 8.30	Chemistry - - -		
		8.30-10.00	Physics - - -		
	Friday	7.00- 8.30	Biology - - -		
		8.30-10.00	Chemistry - - -		

#### INTERMEDIATE COURSE, 2ND AND 3RD YEARS

No. of Course	Day	Time	Subject	Room	Teacher
S5.2	Monday	7.30-10 00	Histopathology - -		
S5.3	Tuesday	7.30-10.00	Bacteriology - -		
	Wed.	7.30-10.00	Blood Transfusion - -		
	Thursday	7.30-10.00	Biochemistry - -		
	Friday	7.30-10.00	Haematology - -		

#### FINAL COURSE, 4TH TO 7TH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S5.4	Monday	7.30-10.00	Blood Transfusion - -		
S5.5	Wed.	7.30-10.00	Bacteriology - -		
S5.6	Thursday	7.30-10.00	Haematology - -		
S5.7					

### GLASSBLOWING

Fee: £3 per session.

No. of Course	Day	Time	Subject	Room	Teacher
GI	Monday or Friday	7.00-10.00	Glassblowing - - -	1	W. G. Brady

## EVENING COURSES

### FLOUR MILLING TECHNOLOGY

*Teacher-in-Charge* : F. NOLAN, M.SC., H.DIP.ED.

Fee: £3 per session.

#### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S2.1	Monday	7.00-9.30	Flour Milling Tech- nology I - - -	27	W. de Lacy
	Thursday	7.00-9.30	Flour Milling Tech- nology and Science I -	27	W. de Lacy

#### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S2.2	Monday	7.00-9.30	Flour Milling Tech- nology II - - -	27	W. de Lacy
	Thursday	7.00-9.30	Flour Milling Tech- nology and Science II	27	W. de Lacy

At the end of the second year students sit for the Intermediate Examination of the Department of Education and of the City and Guilds of London Institute.

#### THIRD YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S2.3	Wed.	7.00-9.30	Flour Milling Tech- nology III - - -	27	W. de Lacy
	Thurs.	7.00-9.30	Flour Milling Tech- nology and Science III	22	R. A. D'Arcy

#### FOURTH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
S2.4	Wed.	7.00-9.30	Flour Milling Tech- nology IV - - -	27	W. de Lacy
	Thurs.	7.00-9.30	Flour Milling Tech- nology and Science IV	22	R. A. D'Arcy

At the end of the fourth year students sit for the Final Examinations of the Department of Education and of the City and Guilds of London Institute.



## EVENING COURSES

### DEPARTMENT OF ELECTRICAL INSTALLATION WORK

Courses Nos. T1.1-T1.3 are reserved to Trade Apprentices and Journeymen who pass the Entrance Examination. The attention of students who do not pass this examination is directed to the Courses described on page 30.

#### Electrical Installation Work

Fee: £3 per session.

#### JUNIOR TRADE CERTIFICATE COURSE

##### FIRST YEAR

*Teacher-in-Charge*: M. FARRELL, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

No. of Course	Day	Time	Subject	Room	Teacher
T1.1	Monday	7.30-10.00	Practical Installation I	33	I. Tighe
	Tuesday	7.30-10.00	Electricity IA - -	12-10	A. Ryan
	Friday	7.30-10.00	Engineering Science IA	3	M. Hayes
T1.1A	Wed.	7.30-10.00	Practical Installation I -	33	I. Tighe, P. O'Shea
	Monday	7.30-10.00	Electricity IB - -	12-10	M. Hayes
	Tuesday	7.30-10.00	Engineering Science IB	8a	R. Kelly

##### SECOND YEAR

*Teacher-in-Charge*: I. TIGHE.

No. of Course	Day	Time	Subject	Room	Teacher
T1.2	Thursday	7.30-10.00	Practical Installation II	33	D. McManus
	Monday	7.30-10.00	Electricity IIA - -	3, 6	E. Hanly
	Tuesday	7.30- 8.45	Engineering Science IIA	4	V. Duggan
	Tuesday	8.45-10.00	Electrical Installation Theory - - -	4	V. Duggan
T1.2A	Thursday	7.30-10.00	Practical Installation II	33	D. McManus
	Monday	7.30-10.00	Electricity IIB - -	8c, 8b	D. Hogan
	Tuesday	7.30- 8.45	Engineering Science IIB	3	M. Ryan,
	Tuesday	8.45-10.00	Electrical Installation Theory - - -	3	T. Mahon
					M. Ryan, T. Mahon

Students are required to sit the Junior Trade Certificate Examinations, Written and Practical, and the Electrical Engineering Practice D.C. Elementary Examination of the Department of Education.

## EVENING COURSES

### SENIOR TRADE CERTIFICATE COURSE

**THIRD YEAR**

*Teacher-in-Charge : I. TIGHE.*

No. of Course	Day	Time	Subject	Room	Teacher
T1.3	Tuesday	7.30-10.00	Practical Installation III	33	I. Tighe
	Thursday	7.30-10.00	Electricity III - -	5	J. Downes
	Friday	7.30- 8.45	Engineering Science III	19	J. O'Keeffe
	Friday	8.45-10.00	Electrical Installation— Theory - - -	19	J. O'Keeffe

Students are required to sit the Senior Trade Certificate Examinations, Written and Practical, and the Electrical Engineering Practice D.C. Intermediate and A.C. Elementary Examinations of the Department of Education and are expected to sit the Course "B" examination of the City and Guilds of London Institute.

Students in the above Courses may be permitted to take a class in Mathematics in lieu of Practical Installation.

### EXTRA ELECTRICIANS' CERTIFICATE IN ELECTRICAL INSTALLATION WORK, COURSE C—CITY AND GUILDS OF LONDON INSTITUTE

Fee: £4 per session.

**FOURTH YEAR**

*Teacher-in-Charge : J. J. FARRELL, GRAD.I.E.E.*

No. of Course	Day	Time	Subject	Room	Teacher
T1.4	Tuesday	7.30-10.00	Electricity IV - -	4	J. O'Keeffe
	Wed.	7.30-10.00	Electricity IV - -	5, 6	V. Duggan
	Thursday	7.30- 9.30	Mathematics M1.3 -	8c	—

This Course also prepares students for the Electrical Engineering Practice A.C. Intermediate examination of the Department of Education.

### ELECTRICAL ENGINEERING PRACTICE FINAL

*Teacher-in-Charge : J. J. FARRELL, GRAD.I.E.E.*

Fee: £5 per session.

This Course extends over two sessions and prepares students for the Final Examinations in Electrical Engineering Practice of the Department of Education and City and Guilds of London Institute. Prospective students must hold the Intermediate Certificate in Electrical Engineering of the Department of Education or City and Guilds of London Institute, or have equivalent qualifications. In addition, a pass in Mathematics, Intermediate, of the Department of Education may be required.



## EVENING COURSES

### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
T1.5	Tuesday	7.00- 8.00	Circuit Theory I - -	11W	J. J. Farrell
		8.00- 9.00	Field Theory I - -	11W	J. J. Farrell
		9.00-10.00	Electrical Engineering Practice - -	11W	J. Downes
	Wed.	7.00- 8.00	Electrical Engineering Practice - -	11W	J. Downes
		8.00- 9.00	Utilisation - -	11W	J. Downes
		9.00-10.00	Electrical Measurements I	11W	J. J. Farrell
		7.00- 8.30	Distribution - -	11W	T. McGibney
		8.30-10.00	Mathematics M1.5 - -	11W	L. Healy
	Friday				

### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
T1.6	Tuesday	7.00- 8.00	Electrical Engineering Practice - -	10W	J. Downes
		8.00- 9.00	Utilisation - -	10W	J. Downes
		9.00-10.00	Electrical Measurements II	10W	J. J. Farrell
	Wed.	7.00- 8.00	Circuit Theory II - -	10W	J. J. Farrell
		8.00- 9.00	Field Theory II - -	10W	J. J. Farrell
		9.00-10.00	Utilisation - -	10W	J. Downes
		7.00- 8.30	Mathematics M1.6 - -	10W	L. Healy
		8.30-10.00	Distribution - -	10W	T. McGibney
	Friday				

### CABLE JOINTING

**Fee: £5 per session.**

*Teacher-in-Charge: D. McMANUS.*

Prospective students must possess the Senior Trade Certificate in Electrical Installation Work of the Department of Education or satisfy the school authority that they have an equivalent standard of Technical Education.

#### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
T2.1	Tues. and Thursday	7.30-10.00	Cable Jointing I (Lecture and Practical) -	34	D. McManus

## ELECTRONICS FOR ELECTRICIANS

**Fee: £10 per session.**

*Teacher-in-Charge: J. J. FARRELL, GRAD.I.E.E.*

This Course is provided for electricians who wish to acquire a knowledge of electronics as applied to industrial control equipment. The first year of the course provides instruction in the elementary principles of electronics and its application to motor speed control, oil firing equipment, counters and control of lighting circuits. A certificate will be issued to those who successfully complete the first year

## EVENING COURSES

of the course and pass the appropriate examinations. The second year of the course provides theoretical and practical instruction in the construction of industrial electronic units, e.g., counting units, cut-off units, rapid and slow-acting relay units, amplifiers, triggering units, metal detectors, etc. Prospective students must be electricians who hold the Senior Trade Certificate in Electrical Installation Work of the Department of Education or who satisfy the College Authority that they have an equivalent standard of technical education.

No. of Course	Day	Time	Subject	Room	Teacher
T5.1	Wednesday	7.30-10.00	Electronics for Electricians I - - -	3	D. Hogan, T. Dempsey
T5.2	Thursday	7.30-10.00	Electronics for Electricians II - - -	3	D. Hogan, T. Dempsey

### T3.1—MAINTENANCE AND TESTING OF ELECTRICAL EQUIPMENT

Fee : £7 10s. 0d. per session.

*Teacher-in-Charge* : J. J. FARRELL, GRAD.I.E.E.

This Course is provided for electricians who wish to acquire a knowledge of testing methods and equipment.

The Course will be held during the day or the evening and at a time to suit the majority of the applicants.

Prospective students must be electricians who hold the Senior Trade Certificate in Electrical Installation Work of the Department of Education or who satisfy the School Authority that they have an equivalent standard of technical education.

### T4.1—REFRIGERATION (THEORY AND PRACTICE)

Fee : £10 per session.

*Teacher-in-Charge* : M. FARRELL, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute)

This Course is provided for refrigeration mechanics. It includes theoretical instruction in the principles of electricity and of refrigeration and practical instruction in maintenance, fault-finding and repairs. Prospective students must have a standard of general and technical education acceptable to the College authority. Classes will be held on Tuesday evenings from 7.30-10.0 p.m. in Rooms 5 and 1. Teachers : A. Ryan and J. Broe.

## ELECTRICAL ENGINEERING

### Graduateship of the Institution of Electrical Engineers

Consequent upon recent changes in the Examination Regulations of the Institution of Electrical Engineers it has proved necessary to reorganise this Course on a Part-time Day Release basis. Students who have progressed beyond Part I of the old Evening Course will



## EVENING COURSES

continue on the old scheme. Students who have successfully completed the Preliminary Engineering Course and students who have not yet taken the Part I Examination of the Institution of Electrical Engineers will be accepted in Course P.E.E. I described on page 24 of the Prospectus. It is hoped to replace the Evening Part II and Part III Courses in successive years by corresponding Part-time Day Release classes similar in pattern to that described for P.E.E. I.

Prospective students who wish to prepare for the professional examinations of the Institution of Electrical Engineers should seek the advice of the teachers-in-charge as to their eligibility for registration as a student of the Institution of Electrical Engineers. Students should obtain a copy of the Examination Regulations from the Institution of Electrical Engineers, Savoy Place, London, W.C.2. Extracts from the Bye-laws of the Institution given under Appendix I in these Regulations indicate how a student may qualify for election to the class of Associate Member (A.M.I.E.E.).

The attention of all students of Course Nos. E1.0-E1.3 is directed to the Part-time Day Courses P.S.S. and P.E.E. described on pages 28 and 24 respectively of this Prospectus.

Fee: £3, September—June

### PRELIMINARY COURSE

*Teacher-in-Charge*: P. O GALLCHOBHAIR, B.EOL., A.T.O.

No. of Course	Day	Time	Subject	Room	Teacher
E1.0	Monday	7.00- 8.30	Physics - - -	—	M. J. Sheehy
		8.30-10.00	Applied Mathematics - - -	—	P. O Gallchobhair
	Tuesday	7.00-10.00	Mathematics M3.1 - - -	—	—
		7.00- 8.30	Applied Mathematics - - -	—	P. O Gallchobhair
	Wed.	8.30-10.00	Physics - - -	—	—
		7.00-10.00	English - - -	25	T. A. G. Dowling
	Thursday	7.00-10.00	English - - -	—	—
		7.00-10.00	English - - -	—	—

Prospective students must pass an entrance examination in English and Mathematics. The attention of students who do not pass this examination is directed to the Preparatory Course described on page 30.

### GRADUATESHIP COURSE

Students entering this Course must have complied with all the educational requirements for registration as a student of the Institution of Electrical Engineers.

#### PART I

*Teacher-in-Charge*: T. SHORT, A.M.I.E.E., GRAD.BRIT.I.R.E.

No. of Course	Day	Time	Subject	Room	Teacher
E1.1	Monday	7.00- 8.30	Electricity - - -	—	T. Short
		8.30-10.00	Mathematics M3.2 - - -	—	P. G. Macnamara
	Tuesday	7.00- 8.30	Mechanics - - -	—	—
		8.30-10.00	Physics - - -	—	—
	Wed.	7.00- 8.30	Electricity - - -	—	T. Short
		8.30-10.00	Mathematics M3.2 - - -	—	P. G. Macnamara
	Thursday	7.00-10.00	English - - -	—	—
		7.00-10.00	English - - -	—	—

## EVENING COURSES

### PART II

*Teacher-in-Charge: T. CRONIN, B.E.*

No. of Course	Day	Time	Subject	Room	Teacher
E1.2	Monday	7.00- 8.30	Mathematics M3.3 - -	—	P. G. Macnamara
		8.30-10.00	Electrical Machines - -	—	T. Short
	Wed.	7.00- 8.30	Mathematics M3.3 - -	—	P. G. Macnamara
		8.30-10.00	Electronics - - -	—	B. J. O'Connor

### PART III

*Teacher-in-Charge: T. SHORT, A.M.I.E.E., GRAD.BRIT.I.R.E.*

No. of Course	Day	Time	Subject	Room	Teacher
E1.3	Monday	7.00- 8.30	Mathematics M3.4 - -	—	—
		8.30-10.00	Utilisation of Electrical Energy - - -	—	R. Ryder
	Wed.	7.00- 8.30	Electronics - - -	—	B. J. O'Connor
		8.30-10.00	Measurements - - -	—	T. Short

Each Part of the Course extends over two sessions. Students who have passed the appropriate examination will be enrolled in the succeeding part of the Course in October each year.

## DEPARTMENT OF TELECOMMUNICATIONS ENGINEERING

### POST OFFICE ENGINEERING

*Teacher-in-Charge: T. P. O'BRIEN, A.M.BRIT.I.R.E.*

These Courses are designed to meet the requirements of employees of the Engineering Branch of the Department of Posts and Telegraphs and of others in similar industrial employment. The Courses have recently been re-organised in co-operation with the Post Office Engineering Advisory Committee. Applicants for admission to Course No. 48 will be required to sit an entrance examination in Mathematics and English of the same standard as that of the Department of Education (Technical Instruction Branch) Day Vocational Certificate. Applicants who fail to reach this standard will be required to attend a preliminary course to be held in another Technical Institute (see page 30).

Fee: £3 per session.

### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R1.1	Monday	7.00- 8.30	Engineering Science	4	—
	Wed.	8.30-10.00	Electricity - -	4	—
		7.00- 8.30	Mathematics M2.3 -	11	E. D. Doyle
	Friday	7.00-10.00	Electricity - -	8c & 10	—

Students sit the Department of Education Examination in Magnetism and Electricity and the City and Guilds of London Institute Examination in Mathematics for Telecommunications 1.



## EVENING COURSES

### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R1.2	Thursday	7.00- 8.30	Telecommunications I -	5	J. V. Quinn
		8.30-10.00	Electricity - - -	5	—
	Monday	7.30-10.00	Mathematics M2.5 -	15	E. D. Doyle

Students sit the Department of Education Examinations in Telecommunications I and Line Plant Practice and the City and Guilds of London Institute Examination in Mathematics for Telecommunications II.

### THIRD YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R1.3	Thursday	7.00-9.00	Telecommunications IIA	4H	J. J. Woods
			or Telecommunications IIB		
	Friday	7.30-9.30	Electronics - - -	7H	T. P. O'Brien

Students sit the Department of Education Examination in Telecommunications IIA or IIB.

### FOURTH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R1.4	Mon. or Wed.	7.30- 9.30	Electronics for Telecommunications -	7H	T. P. O'Brien
			Mathematics M2.6 -	28	—
	Tuesday	7.30-10.00			

Students sit the Department of Education Examination in Electronics for Telecommunications. The fifth year of the Course will be offered in 1964-65 and will consist of Transmission and Lines or Radio Communication (2 evenings each).

## POST OFFICE FACTORY MECHANICS

A course has been arranged for Junior Mechanics employed by the Post Office Factory. Most of the classes are concurrent with those described above.

**Fee: £3 per session.**

### FIRST YEAR

No. of Course	
R2.1	As Course R1.1 on page 42

# EVENING COURSES

## SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R2.2	Monday	7.00- 8.30	Telecommunications I -	5	J. V. Quinn
		8.30-10.00	Electricity -	5	—
	Tuesday	7.30- 9.30	Telephone Repairs B -	8c	R. O'Brien
		7.30-10.00	Mathematics M2.5 -	15	E. D. Doyle

## THIRD YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R2.3	Thursday	7.00-9.00	Telecommunications IIA	7H	J. J. Woods
			or Telecommunications IIB		
	Tuesday	7.30-9.30	Telephone Repairs B -	8c	R. O'Brien
	Friday	7.30-9.30	Electronics - - -	7H	T. P. O'Brien

FOURTH YEAR: As Course R1.4 on page 43.

## RADIO AND TELEVISION SERVICING

Applicants for admission to this Course must hold the Day Vocational Certificate (Manual Training Group) in approved subjects or the Intermediate Certificate (Secondary Schools). They may be required to pass an Entrance Examination in Mathematics and English.

Priority in enrolment is given to those apprenticed in the Radio Service Trade.

*Teacher-in-Charge* : E. G. SEALE, GRAD.BRIT.I.R.E.

1st, 2nd and 3rd Years—£3 per session.

4th and 5th Years—£4 per session.

## FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R4.1	Tuesday	7.00-10.00	Electricity - -	8a, 8b	
	Wednesday	7.00- 8.30	Electricity - -	8c	
		8.30-10.00	Mathematics M2.2 -	8c	
	Thursday	7.00- 8.30	Applied Mathematics -		
		8.30-10.00	Engineering Science -		

## SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R4.2	Wednesday	7.00- 8.30	Radio Theory - -		S. O'Donnell
		8.30-10.00	Mathematics M2.4 -	11	E. G. Doyle
	Monday	7.00- 8.30	Radio Theory - -		S. O'Donnell
		8.30-10.00	Electricity - -		E. G. Seale
	—	7.00-10.00	Radio Practical - -	9	—

At the end of this year of the Course students sit the examinations of the Department of Education in Radio Service Work (Junior).



## THIRD YEAR

### EVENING COURSES

No. of Course	Day	Time	Subject	Room	Teacher
R4.3	Wednesday	7.00- 8.30	Mathematics - - -	—	—
		8.30-10.00	Radio Theory - - -	—	S. O'Donnell
	Monday	7.00- 8.30	Electricity - - -	—	E. G. Seale
		8.30-10.00	Radio Theory - - -	—	S. O'Donnell
		7.00-10.00	Radio Practical - - -	9	—

At the end of this year of the Course students sit the examination of the Department of Education in Radio Service Work (Senior) and may sit the Intermediate Examination in Radio and Television Servicing of the Radio Trades Examination Board, London.

## FOURTH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R4.4	To be arranged	7.00-10.00	Radio and Television—	9 & 6h	T. Lawless
			Practical - - -		E. G. Seale
		7.00- 8.30	Television Theory - - -	—	T. Lawless
		8.30-10.00	Radio Theory - - -	—	E. G. Seale

## FIFTH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R4.5	To be arranged	7.00-10.00	Television Theory and Practical - - -	6h	W. Chapple
		7.00-10.00	Radio Theory and Practical	9	W. Chapple

At the end of this year of the Course, students sit the Final Examinations in Radio and Television Servicing of the Radio Trades' Examination Board, London.

## RADIO OFFICERS' CERTIFICATE COURSE

### (Mercantile Marine)

*Teacher-in-Charge:* B. J. O'CONNOR, A.M.BRIT.I.R.E.

**Fee: £8 per session.**

This Course is conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

The Course extends over three years for a 2nd Class Certificate and an additional year is necessary for a 1st Class Certificate. Prospective students should have a general education equivalent to that of

## EVENING COURSES

Intermediate Certificate and may be required to pass an Entrance Examination in English and Mathematics.

### TIMETABLE (September to June)

#### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R3.1	Tuesday	7.00-10.00	Morse - - - -	3H	H. McElligott
	Wed.	7.00-10.00	Morse - - - -	4H	H. McElligott
	Thursday	7.00-10.00	Morse - - - -	3H	H. McElligott
	Friday	7.00-10.00	Technical Electricity I -	8a, 8b	P. Harrington

#### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R3.2	Monday	7.00-10.00	Morse - - - -	3H	J. Dorney
	Tuesday	7.30- 9.30	Technical Electricity II	4H	P. Harrington
	Friday	7.00- 9.00	Morse - - - -	3H	J. Dorney
	Friday	9.00-10.00	International Regula- tions - - - -	3H	J. Dorney
	Thursday	7.30- 9.30	Radio Communication Theory I - - - -	4H	T. J. Kelly

#### THIRD YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R3.3	Monday	7.00- 8.30	Technical Electricity III -	4H	T. J. Kelly
		8.30-10.00	Radio Communication Theory II - - - -	4H	T. J. Kelly
	Thurs. or Friday	7.00-10.00	Practical Radio - - - -	2H	J. Blennerhassett
	Wed.	7.00- 9.00	Morse - - - -	3H	J. J. McCowan
	Wed.	9.00-10.00	International Rules - - - -	3H	J. J. McCowan
	Thursday	7.00-10.00	Morse - - - -	3H	J. J. McCowan

**FOURTH YEAR:** Radio Communication, Theory and Tutorial; Practical Radio; Morse, Traffic Working and International Regulations (3 evenings).

This year of the Course will be offered during the session 1965-66 if there is sufficient demand.

Course No. R4.	MORSE: Morse may be taken as a separate subject on Tuesday, Wednesday and Thursday, 7.00-10.00, if accommodation permits, at a fee of £3 per term.
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For additional information, see pages 9 and 10.



## EVENING COURSES

### TELECOMMUNICATIONS TECHNICIANS' COURSE

*Teacher-in-Charge* : B. J. O'CONNOR, A.M.BRIT.I.R.E.

Fee: £3 per session.

This four-year Course prepares students for the Telecommunications Technicians' Certificate examinations of the City and Guilds of London Institute. The subjects offered are: Mathematics, Telecommunications Principles and Radio.

Applicants for admission to the Course should hold the Day Vocational Certificate (Manual Training Group) in approved subjects or the Intermediate Certificate (Secondary School).

Priority in enrolment will be given to those employed in the Radio and Electronics industry.

#### FIRST YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R6.1	Monday	7.00- 8.30	Engineering Science -	—	—
		8.30-10.00	Elementary Telecommunications Practice -	—	—
	Wed.	7.00- 8.30	Mathematics M2.1 -	8c	—

At the end of this year of the Course students sit for Practical Mathematics, Engineering Science and Elementary Telecommunications Practice, examinations of the City and Guilds of London Institute.

#### SECOND YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R6.2	Monday	7.00- 8.30	Telecommunications Principles A -	11	J. J. Woods
		8.30-10.00	Radio and Line Transmission A -	11	—
	Wed.	7.00- 8.30	Mathematics M2.3 -	11	E. D. Doyle

At the end of this year of the Course students sit for Mathematics A, Telecommunications Principles A and Radio and Line Transmission A, examinations of the City and Guilds of London Institute.

## EVENING COURSES

### THIRD YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R6.3	Monday	7.00- 8.30	Radio and Line Trans-	—	—
		mission B - - -	—		
	Thurs. Friday	8.30-10.00	Telecommunications	15	J. J. Woods
			Principles B - - -		
		7.30-10.00	Mathematics M2.5 - - -		
		7.00- 9.00	Laboratory - - -		
		9.00-10.00	Tutorial - - -	13	J. J. Woods

At the end of this year of the Course students sit for Mathematics B, Telecommunications Principles B and Radio and Line Transmission B examinations of the City and Guilds of London Institute.

### FOURTH YEAR

No. of Course	Day	Time	Subject	Room	Teacher
R6.4	Tuesday Wed.	7.00- 9.30	Mathematics M2.6 - - -	—	—
		7.00- 9.00	Laboratory - - -		
	Thurs.	9.00-10.00	Tutorial - - -	13	—
		7.00- 9.00	Radio C - - -		
		9.00-10.00	Telecommunications		
			Principles C - - -		
	Friday	7.00- 9.00	Telecommunications	—	J. J. Woods
		9.00-10.00	Principles C - - -		
			Radio C - - -	—	—

At the end of the Course students sit for Mathematics C, Telecommunications Principles C and Radio C examinations of the City and Guilds of London Institute.

## Air Navigation—Civil Aviation

*Teacher-in-Charge: CAPT. B. FLANAGAN.*

These Courses are conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

**Courses in AIR NAVIGATION subjects in preparation for the State Examination for Pilot's and Navigator's Licences.**

The Courses offer specialised instruction based on the Syllabuses for the various Licence examinations conducted by the Department of Transport and Power. Applicants for admission to the Course for the Pilot's Licences must have attained proficiency in Plane Trigonometry up to the general solution of triangles and in the use of five-figure logarithms.

The granting of Licences to successful examinees is contingent on submitting acceptable evidence of actual flying experience to



## EVENING COURSES

the minimum extent laid down in Statutory Instrument No. 33 of Air Navigation (Personnel Licensing) Order, 1951.

The Courses are conducted on three evenings per week during the session.

### A.2 AIRCRAFT DISPATCHER COURSE

September to June—£20.

This Course, which is conducted on three evenings per week, from 7.30-10 p.m., is officially recognised by the Civil Aeronautics Administration, United States Department of Commerce. Students who successfully graduate from this Course are eligible to sit for the Federal Aviation Agency Aircraft Dispatcher's Licence provided they are at least 23 years of age.

Subject	Teacher
Aircraft Dispatching, Navigation, Aircraft Instruments, Civil Air Regulations .....	Capt. B. Flanagan
Telecommunications and Radio Aids to Navigation .....	J. Ring
Meteorology .....	J. O'Connor
Air Traffic Control .....	G. McCudden
Aircraft (Airframes Engines, etc.) .....	—
Link Trainer .....	A. W. Patterson

No.	Course	Fee
A.3	Commercial Pilot's Licence .....	£10 per Session
A.4	Airline Transport Pilot's Licence .....	£15 per Session
A.5	Flight Navigator's Licence .....	£20 per Session

Subject	Teacher
Navigation, Aeronautical Charts, Magnetic Compass, General Meteorology .....	Capt. B. Flanagan
Synoptic Meteorology .....	J. O'Connor
Air Navigation Regulations, Rules of the Air, Air Traffic Control Procedures .....	G. McCudden
Telecommunications and Radio Aids to Navigation .....	J. Ring

## EVENING COURSES

### CIVIL AIRPORT CONTROL OFFICERS

The examination for Civil Airport Control Officers is similar in standard to the Senior Commercial Pilot's Licence examination or Aircraft Dispatcher Licence Examination.

#### A.6 PRIVATE PILOT'S LICENCE COURSE

Fee: £10 per session.

The Course commences in November and provides a total of 75 hours instruction. It covers the theoretical portion of the syllabus of the Department of Transport and Power for the Private Pilot's Licence Examination as set out in Memorandum No. PEL/2 revised 1954. Classes are held on two nights each week from 7.30 to 10 p.m.

The number of students enrolled will be limited to a maximum of twenty, and applicants for enrolment must have a minimum of twenty hours flying experience.

### BAKERY PRACTICE AND CONFECTIONERY DECORATION

*Teacher-in-Charge:* S. ANTHONY, TECH.DIP. CITY AND GUILDS

#### BAKERY PRACTICE (Journeyman)

Fee: £3 per session.

No. of Course	Day	Time	Subject	Room	Teacher
B1.1	Wednes.	7.00-10.00	Bakery Practice - -	20	S. Anthony

#### CONFECTIONERY DECORATION INTERMEDIATE COURSE

Fee: £3 per session.

No. of Course	Day	Time	Subject	Room	Teacher
B1.2	Monday	7.00-10.00	Design, Icing, Piping -	20	—

#### ADVANCED COURSE

Fee: £3 per session.

No. of Course	Day	Time	Subject	Room	Teacher
B1.3	Thursday	7.00-10.00	Design, Icing, Piping -	20	S. Anthony



## EVENING COURSES

### SPECIAL COURSES IN ENGINEERING AND SCIENCE AT GRADUATE OR POST-GRADUATE LEVEL

The College is prepared, subject to availability of accommodation and sufficient demand, to provide one or more Short Courses at Graduate or Post-Graduate Level on topics of Engineering and Scientific Interest during the current session. These Courses would be held on one evening per week, the day and time being arranged to suit the majority of those enrolled. A short list of typical courses, with the estimated number of lectures involved, is given below.

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100	Introductory Electronics for Engineers, Part I	20	Lectures
101	Introductory Electronics for Engineers, Part II	20	,,
102	Electronic Circuit Theory .....	10	,,
103	Mathematics for Electrical Engineers .....	10	,,
104	Transistors and Transistor Circuits .....	8	,,
105	Radio Frequency Measurements .....	10	,,
106	Transmission Lines and Aerials .....	8	,,
107	Modern Physics for Engineers .....	6	,,
108	Electronics for Chemists .....	10	,,
109	Chromatography .....	6	,,
110	Applications of Radio-Active Isotopes .....	6	,,
111	Instrumental Analysis .....	8	,,
112	Feed Back Control Systems .....	10	,,
113	Statistics for Engineers and Scientists .....	20	,,

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FEES : 6 or 8 Lectures, £5; 10 Lectures, £7 10s. 0d.; 20 Lectures, £10.

Further information may be obtained on application to the Principal, who would welcome suggestions for the inclusion of other subjects of a similar nature.

## SCHOLARSHIPS AND PRIZES

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### SCHOLARSHIPS TO THE SENIOR SCIENCE COURSE

The City of Dublin Vocational Education Committee offers twenty Scholarships, each valued at £40 tenable at the Colleges of Technology. Each Scholarship is for one year and will entitle the holder to a place in the Senior Science Course at this College or in the Preliminary Engineering Course at the College of Technology, Bolton Street. Ten Scholarships will be available to Technical School students and ten Scholarships to Secondary School students who have passed the Intermediate Certificate Examination. Scholarships will be awarded only to students who have resided ordinarily in the City of Dublin for the past three years.

Candidates who have sat their Certificate examinations in the current year will be permitted to sit for the Scholarship examination. However, the award of a Scholarship will be contingent on a candidate's success in the former examinations.

### SCHOLARSHIPS FOR THE ELECTRICAL ENGINEERING COURSE (Whole-time Day)

The City of Dublin Vocational Education Committee offers scholarships to the second and third years of the above course. The scholarships are awarded on the results of the sessional examinations and consist of free tuition for the succeeding year of the course. One such scholarship will be awarded for each year of the course and where the numbers of students sitting for a sessional examination is ten or more, two such scholarships may be awarded.

### MALLIN MEMORIAL PRIZE

Mr. Kevin Mallin, Vice-President of the Ampex Corporation, California, U.S.A., has presented to the City of Dublin Vocational Education Committee funds to endow an award to be known as the Mallin Memorial Prize in memory of his brother, Denis P. Mallin, B.A., late Headmaster of the Technical Institute, Marino, Dublin. The Prize, which is £50 in value, will be awarded to the best student of Electronics in the final year of the Electrical Engineering Sandwich Course S.E.E.

### THE FOY SCHOLARSHIP IN APPLIED CHEMISTRY

A former student of the Institute, Mr. W. P. Armstrong, has established a Scholarship in Chemistry to be called the "Foy Scholarship." The annual value of the Scholarship is about £14, being the proceeds of an investment of £500 in Dublin Corporation Stock.



The Scholarship is awarded each Session on the result of the sessional examination in Chemistry held at the end of the 2nd Year B.Sc. Degree Course. All students who have attended regularly during two Sessions in the Chemistry Department are eligible to compete, and the student to whom the Scholarship is awarded must pursue his studies in the Chemistry Department during the following Session.

### THE DUBLIN MECHANICS' INSTITUTE SCHOLARSHIPS

The Residuary Fund of the Dublin Mechanics' Institute has been made available for Industrial Scholarships under the management of the Vocational Education Committee.

One Scholarship will be awarded annually in the Electrical Engineering and Physics Group. The Scholarship is tenable for three years, and its value is about £3 per year.

Candidates must be engaged in an Operative Trade as Apprentices or Learners. They must be between the ages of 16 and 19, and must have attended a Technical Course during the preceding School Session and made 80 per cent. of the possible attendances in two of the subjects of the Course in which they are entered.

### POST OFFICE ENGINEERING

The Department of Posts and Telegraphs offers the following prizes to students of the Post Office Engineering Sandwich Course: 1st Year and 2nd Year—1st Prize £5, 2nd Prize £2; 3rd Year—1st Prize £7, 2nd Prize £3, 3rd Prize £1. The Irish Post Office Engineering Union offers a 1st Prize of £3 and a 2nd Prize of £2 in each of the three years of the Course.

### ELECTRICAL INSTALLATION WORK

The Electricity Supply Board offers prizes to a total value of £60 per annum for award to apprentices who secure 1st, 2nd or 3rd Place in the subjects Metalwork and Practical Installation in the Electrical Installation Work Sandwich Course.

### PROJECTION SCIENCE

The Theatre and Cinema Association (Ireland) and the Irish Transport and General Workers' Union (Cinema Branch) jointly offer the following Prizes to students attending the Projection Science Course for Cinema Apprentices: 1st Year—1st Prize £3, 2nd Prize £2, 3rd Prize £1; 2nd Year—1st Prize £5, 2nd Prize £3; 3rd Year—1st Prize, Gold Medal and £5; 2nd Prize, Silver Medal and £3.

## BREADMAKING AND FLOUR CONFECTIONERY

Silver Cups are awarded by the Irish Bakers, Confectioners' and Allied Workers' Union and the Dublin Master Bakers' Committee, to the students who obtain 1st and 2nd Places in the sessional examinations of the Part-time Day Release Course.

The Dublin Master Bakers' Committee, the Guild of Irish Bakers and the Irish Bakers and Confectioners' and Allied Workers' Union jointly offer the following prizes to apprentices who pass the Final examinations of the City and Guilds of London Institute in the three subjects, Breadmaking, Flour Confectionery and Bakery Science:—

1st Class passes in the three subjects—£12.

1st Class passes in two subjects and 2nd Class pass in the third—£10.

1st Class pass in one subject and 2nd Class passes in the other two—£8.

2nd Class passes in the three subjects—£6.

Two Silver Cups are presented jointly by the same three organisations for Confectionery Decoration Classes. One is the Intermediate Confectionery Decoration Cup, confined to competition among apprentices, and the second is the Advanced Confectionery Decoration Cup for competition among apprentices and journeymen.

Messrs. John F. Renshaw & Co. (Ireland), Ltd., present a Silver Cup for competition among apprentices of the Part-time Day Release Course. Prizes of 5 guineas, 3 guineas and 2 guineas are awarded to the students who obtain 1st, 2nd and 3rd places in this competition.

## FLOUR MILLING TECHNOLOGY

The Irish Flour Millers' Association offers, annually, prizes to the value of £37 10s. for award to students attending the Courses who have attained successes in the Department of Education Examinations.

## ELECTRONICS FOR ELECTRICIANS

The Electrical Trades Union of Ireland offers prizes to a total value of £10 for award to members who secure 1st, 2nd and 3rd Place in the Certificate Examination set at the end of the Course.



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